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Annex "A," Subparagraph 3i,
Economic Background

## FOREIGN TRADE AND EXCHANGE

439 Of the five provinces of East China, only Anhwei has no direct outlet to the sea. The provinces of Shantung, Kiangsu, Chekiang, and Fukien, on the other hand, provide virtually the entire eastern and southeastern seaboard of the Chinese Mainland. Furthermore, access to the inland provinces is especially facilitated by the Yangtze River via the port of Shanghai. These geographical facts served in the past to make East China one of the most important areas of foreign contact, if not the most important. Foreign investors followed the footsteps of foreign merchants and the trade ports became in turn centers of manufacturing, which further encouraged their development as focal points in foreign commerce.

### Customs Offices and Principal Ports

502 The identity of the principal ports of the East China provinces today may be seen from the distribution of Communist China's customs establishments in this area.[1]

1. Lun-hsien-hou Ti Ta-lu [Mainland under Occupation], Taipei, Chung-hua wen-hua ch'u-pan shih-yeh wei-yüan-hui, 1953, pp. 140-41.

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502 Apparently, the above tabulation represents the result of the streamlining of the customs administration as former customs offices at such river ports as Wu-hu (Anhwei Province), Nanking, Soochow, and Chen-chiang (Kiangsu Province) have been eliminated. Moreover, seaports like Lung-k'ou and Wei-hai-wei -- both in Shantung Province -- do no appear on the list. While foreign trade may still be conducted through such points, there is no doubt that the twelve ports given in the table above now constitute the principal points of contact in East China's trade with foreign countries.

## Relative Importance of East China Ports in Imports and Exports

504 439 During 1936, the last year of relative peace before the resumption of the Sino-Japanese War, the East China ports accounted for 70.9 per cent of the country's imports and 62.6 per cent of its exports. At the end of World War II, because of civil war activities in North China and their adverse effect on trade, and because of the large import of consumer goods demanded by the population of the coastal cities, the relative importance of the East China ports was further enhanced so that 87.4 per cent of the country's imports and 66.3 per cent of its exports were funneled through these ports

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504 in 1946.[2]
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As far as imports are concerned, the principal ports of entry in 1936, arranged in diminishing order of their trade volume and exclusive of river ports, were (1) Shanghai, (2) Tsingtao, (3) Amoy, (4) Chefoo (Shantung Province), (5) Foochow, (6) Hangchow, (7) Lung-k'ou (Shantung Province), (8) Ningpo (Chekiang Province), (9) Wei-hai-wei (Shantung Province), (10) Wen-chou (Chekiang Province), and (11) San-tu-ao (Fukien Province). At the same time, the corresponding list for exports was: (1) Shanghai, (2) Tsingtao, (3) Chefoo, (4) Foochow, (5) Amoy, (6) Lung-k'ou, (7) Wei-hai-wei, (8) Wen-chou, (9) Ningpo, and (10) San-tu-ao.[3] The two lists are in agreement in placing Shanghai and Tsingtao as the first and second busiest ports on the East China coast, but differ somewhat on the relative significance of the remaining ports. As far as statistics of any one year can be taken as an indication of normal conditions, the lists above seem to point to a greater role for the Shantung ports (other than Tsingtao) in relation to the remaining East China ports, in China's export trade, than in the country's import trade.

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2. Chinese Maritime Customs, Statistical Series, Trade of China 1936 and 1946, Shanghai, passim.

3. Ibid.

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439 The phenomenon that the East China ports as a whole were more important as import channels than as export channels in China's foreign trade in the past and that, with the exception of Shanghai and Tsingtao, the individual East China ports also exhibited a similar dichotomy in relation to one another is a reflection of the following factors. First, the volume of imports handled by any port or area is determined primarily by the latter's importance as a center of manufacturing and consumption and by its capacity to serve as a point of entry for other similar centers. Second, the volume of exports that pass through any port or area is chiefly dependent upon accessibility to areas producing such goods. It was for these reasons that East China, which contains the large manufacturing and consumption centers of Shanghai and Tsingtao, was more important in the country's import trade than in its export trade. It was probably for the same reasons that, in relation to other East China ports, the Shantung ports of East China (except Tsingtao) seemed to be more important as export centers than as import centers while the Fukien and Chekiang ports presented the opposite case. As the underlying economic factors change, the relative position of these ports with respect to imports and exports will, of course, also undergo corresponding adjustments.

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## The Changing Role of East China in Foreign Trade

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Some adjustments have already taken place under the Communist regime. For instance, during the nine-month period from June 1949 to February 1950, Shanghai recorded only US $15.3 million worth of imports and US$ 9.9 million of exports.[4] At these rates the annual amounts would be US$ 20.4 million and US$ 13.2 million, respectively, and would be no more than 11.4 per cent of the country's total imports and 8 per cent of the total exports, a far cry from the pre-Communist period when Shanghai accounted for well over one-half of the total exports and from 80 per cent (1936) to 90 per cent (1946) of the total imports. The situation was not much improved in the following year when Shanghai registered an export volume of US$ 44 million,[5] which corresponded to less than 10 per cent of the country's estimated total export trade.[6]

A number of reasons were responsible for this sudden decline of the share of Shanghai,

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4. Ching-chi Chou-pao [Economic Weekly], Shanghai, May 25, 1950, p. 9.

5. Far Eastern Economic Review, Hong Kong, April 19, 1951, p. 486. This may also be compared with India's export of $ 1,140 million in 1950; cf. United Nations, Economic Survey of Asia and the Far East, 1950, New York, 1951, p. 312.

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439 and hence that of East China as a whole, in Chinese foreign trade during the first phase of Communist rule. One vital factor in this development during 1949-50 was undoubtedly the Nationalist blockade which extended at one time well to the north of Shanghai and all along the southeastern coast. This blockade was apparently more effective in reducing the usefulness of these ports than one might have been inclined to believe at the outset. However, the loss of the Chou-shan (Chusan) archipelago and the subsequent evacuation of various coastal island groups by the Nationalists has whittled down the effectiveness of the blockade to a token level affecting the Fukien ports only.

## Underlying Economic Factors

The complete elimination of this non-economic and exogenous influence would not mean that East China in general and Shanghai in particular would reassert their predominance in China's foreign trade, inasmuch as several basic economic changes have taken place under the Communist regime. First, Shanghai has ceased to be the most important manufacturing center of China and does not represent a major center for further intensive development under

6. Yuan-li Wu, An Economic Survey of Communist China, chap. XIII. New York, Bookman Associates, 1956.

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439 the Five-Year Plan. The same may be said of the entire lower Yangtze valley served by Shanghai in comparison with other areas of the Mainland. Secondly, near self-sufficiency in raw cotton has reduced, or perhaps removed, the need to import cotton to feed the large cotton textile industry of Shanghai and Tsingtao. Thirdly, as a result of general austerity and import restriction, such coastal cities as Shanghai, Tsingtao, and Amoy, as well as inland urban centers like Nanking, have ceased to be areas of concentrated demand for imported consumer goods. Finally, intensive development of North China, South China, and Manchurian ports, together with land transportation lines in the west and north, have opened up alternative channels of foreign trade which, developed at a time when the coastal blockade was a serious threat to the Communists, would not diminish in importance even if such military threat were completely removed.

## Exports from East China

On the basis of the above analysis, it would appear that in the future East China will reverse its traditional role in China's foreign trade and become relatively less important in imports than in exports, i.e., both as outlets for exports in general and as the producer of exportable goods. In this connection, it may be noted that major exports from Shanghai in the second half of 1949, arranged in

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439 diminishing order of their respective magnitudes, were: (1) tea, (2) furs and skins, (3) wood oil, (4) wool, (5) feathers, (6) cotton yarn, (7) egg products, (8) textiles other than cotton, (9) cotton piece goods, (10) intestines as casing, (11) raw silk, (12) straw hats, and (13) peppermint.[7] Of these, tea, raw silk, straw hats, and textiles may be regarded as products indigenous to East China. A similar listing for Shanghai exports in 1950 consisted of (1) ground nuts, (2) menthol, (3) wood oil (4) tea, (5) lace, (6) vegetable oils other than wood oil, (7) cotton yarn and cloth, (8) cereals and other edible products, (9) peppermint oil, (10) straw hats, (11) gallnuts, and (12) hemp.[8] The second list generally corresponded to the first and both reflected the predominance of agricultural and handicraft products in China's exports.

If the traditional importance of certain exports from East China may be regarded as an

7. Far Eastern Economic Review, Hong Kong, July 20, 1950, p. 74.
8. Ibid., April 19, 1951, p. 486.

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439 indication of future development, one might also expect some expansion in the export of bristles, which had suffered a decline in the early phase of the Communist regime, in addition to export of tea and wood oil. On the other hand, it is entirely possible that shipments through East China of such ores and metals as antimony and wolfram may not be revived to former levels because the bulk of such shipments is now destined for countries within the Soviet orbit and may take different routes.

Moreover, in line with Communist China's policy to expand the export of manufactured products, Shanghai and Tsingtao, as principal centers of light manufacturing industries, may be expected to contributed substantially to the effort. According to a recent report, for instance, the Shanghai branch of the China Industrial Products Export Company is said to have undertaken the organization of the export of various manufactured goods to African and Asian countries, including such items as electric fans, window screens, thermos flasks, sheets of asbestos, knitted wear, piece goods, and pharmaceuticals.[9] That this type of activity will be continued and expanded in the future may be taken for granted.

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9. Hua-ch'iao Jih-pao [China Daily News], New York, June 27, 1955.

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439 The above trend has been further confirmed in a recent report from a Communist paper in Hong Kong which, while alleging a substantial increase in Shanghai's export trade in 1954 as compared with 1936, also stated that the volume of exports exceeded that of imports. Various manufactures were again mentioned as among the exports while former imports such as newsprint, glycerine, caustic soda, and pure soda, were no longer imported.[10]

Nationalization of Foreign Trade

471 439 A number of developments in East China under the present regime are especially symbolic of the radical change in China's foreign economic relations in recent years. One of the first things to be noted is the gradual elimination of private business from the foreign trade field. There were, for instance, as many as 1,434 registered private import firms in Shanghai prior to the Communist occupation.[11] By 1952, the total number of registered private importers and exporters had dropped to 800 for the country as a whole.[12] Even prior to

10. Wen-hui Pao [Wen-hui Daily], Hong Kong, June 22, 1955.

11. Far Eastern Economic Review, Hong Kong, April 19, 1951, p. 483.

12. Ching-chi Chou-pao [Economic Weekly], Shanghai, Oct. 2, 1952, pp. 775-76.

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439 471 the Five-Anti Campaign, government trading already accounted for 67 per cent of Shanghai's exports and 54 per cent of the city's imports. Moreover, only 10 per cent of the private foreign trade business was accounted for by non-Chinese firms.[13] This trend of nationalization and naturalization of foreign trade has by now been carried to its logical conclusion.

In the second place, it may be noted that as early as October 1949, when there was no United Nations embargo against Communist China, a trade agreement was concluded between the USSR and East China, under which 8,000 tons of Russian newsprint and paper pulp were bartered for 1,024 quintals of bristles and 800 bags of raw silk.[14] While no other regional trade pacts have been concluded by East China thereafter, in this case the reorientation of China's foreign trade toward the Soviet orbit can be clearly seen.

Black Market Foreign Exchange

457 439 However, one would be mistaken if one were to conclude that such East China ports as Shanghai and Amoy, which were focal points

13. Ibid.

14. Economic Weekly, Shanghai, May 25, 1950, p. 9.

439 of private financial and economic activity, have
457 entirely discarded every trace of business methods common in the pre-Communist period of monetary inflation. A most notable case in this respect is the continued practice of conducting private remittances between Shanghai and Amoy, on the one hand, and the British Crown Colony of Hong Kong, on the other hand, in defiance of the Communists' exchange and trade controls. Quotations for such remittances can be obtained in Hong Kong and business is usually carried on in terms of gold bars or U. S. dollars, albeit on a small scale. Although gold and U. S. dollars are not actually shipped -- i.e., smuggled -- in each transaction, the possibility apparently exists. Moreover, there would appear to be black markets in both gold and U. S. dollars in these former treaty ports. While this state of affairs will undoubtedly change, it nevertheless points to the existence, for the present at any rate, of what to the Communist authorities must be an "insidious influence" born of the days of dominance of Chinese "bureaucratic" capitalism and foreign "exploitation" in East China's economic relations with the outside world.

## Control of Foreign Exchange

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The Bank of China, as designated by the People's Bank, handles what few foreign-exchange transactions there are, including the

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politan limits, and the Chinese economy on which its trade is based remains far from integrated or commercialized, while railways are still perhaps China's most notable lack.

But Shanghai lies near the seaward face of the Yangtze delta, where the extensive water routes of a great river system are gathered into a knot, and where the coast of China extends farthest into the open sea. Goods which different local areas produced and for which foreign traders found overseas markets could thus move out for export through Shanghai, and foreign goods entering China in return could be distributed over a wide area from the city. Shanghai thereby became the commercial center for virtually all of the Yangtze basin, which includes the most populous and productive half of China. Not only did trade flow through the city, but Shanghai also became one of the world's leading financial centers. Its banks financed the Chinese government as well as the economic life of the city and of its commercial hinterland of half of China and all the Chinese ports. They controlled "at a very conservative estimate 90 per cent of the imports and exports between China and foreign countries."[1] As manufacturing developed in the city during the twentieth century, aided by the accumulation there of foreign and Chinese capital earned in trade, it was able to compete successfully with other manufacturing centers, despite the local absence of most industrial raw materials, because of the ease and cheapness of water transport for the materials of manufacturing brought from more distant places. Finally, Shanghai's four million people could be fed largely from rice produced in the fertile Yangtze delta.

Perhaps the most remarkable aspect of the city is simply its size. Dense populations have long been associated with deltas, and in southeast Asia nearly all of the notable population concentrations are on fertile deltaic soils where ample water is available for the irrigation of paddy rice. Each of the major deltas in southeast Asia also supports the largest or second largest city in its political unit (Hanoi, Saigon, Bankok, Rangoon, and Calcutta). But none of these cities approaches Shanghai in size; Calcutta, the largest, has a population of only about two and a half millions.

Two outstanding locational factors distinguish Shanghai from other delta cities in the lower and lower-middle latitudes: its central

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position on the coast of east Asia, and the great extent of its trade hinterland. With a similar delta agrarian setting for all of these cities, Shanghai is nearly twice as large as any of them because the trade of half, and that half the richer one, of the most populous political unit in the world is funneled through the city by the pattern of inland waterways and sea routes which focuses on it. In the pre-industrial economy of China, water transport is by far the most important volume carrier. While China remained agrarian, the stimulation of its external trade by foreign commercial enterprise produced an interregional flow of goods which moved largely through Shanghai. This situation continued to implement the physical advantages of the city's location to make it the major point of contact between China and the West.

Modern Chinese banking and finance, manufacturing, and commercial organization (and the new class of Chinese associated with them and divorced from traditional China) all got their start there, are still largely concentrated there, and for the last hundred years have spread out from there as from the center of a whirlpool. Of the whole process of Westernization in China, only railways came relatively late to Shanghai, a logical exception in view of the abundance of good water transport. Otherwise the city rapidly became, within the first decade of its opening to foreign trade, a physical and economic replica of the nineteenth-century Europe which had built it, and in time of the twentieth-century America which was also a prominent contributor.

Shanghai and the pattern of its development during the past century have been modern China in microcosm. In the city China for the first time learned and absorbed the lessons of extraterritoriality, gun-boat diplomacy, foreign "concessions," and the aggressive spirit of nineteenth century Europe. There more than anywhere else the two civilizations came together: the rational, legal-minded, scientific, industrialized, efficient, expansionist West, and traditional, intuitive, humanist, agrarian, inefficient, seclusionist China. The sequel, and China's response, began primarily at Shanghai, and there modern China was born.

China's economic revolution, as fully as Chinese nationalism, struck its first modern roots beside the Whangpoo, and these two

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of real significance for the existence of the city as a foreign enclave. (All special rights of foreigners in China, including extraterritoriality, were renounced by the treaty powers in 1944. Shanghai is now governed as a single unit by the Communist administration.)

The practice at many other treaty ports in China differed. At some, outright territorial concessions were made to each important foreign trading power; at others, the Chinese authorities established "international settlements" where foreigners might purchase land; at others, as at Shanghai, certain areas were reserved for foreign leasing (and later foreign purchase), with title deeds issued by the Chinese Government. Altogether, more than forty such treaty ports were established in China (some of them in fact inland centers far removed from navigable waterways), and administrative practice differed widely among them. The one common feature of all the treaty ports was that goods entering the "port" were exempted from all further taxation on their domestic movement by the payment of one inclusive tax. This provision was intended primarily to expedite the foreign trade of the treaty ports, but it also acted to encourage the movement of domestic trade through these cities with the streamlined tax system as compared with the multiplicity of local taxes which otherwise interrupted the movement of goods within China.

At Shanghai, there were three independent political units (map 3). First, the original Chinese city, to which were added, as the city grew after its opening to foreign trade, areas of predominantly Chinese occupancy outside the limits of the foreign settlements. This Chinese area was governed by the local Chinese county authorities until 1928, when the Nationalist Government established the Municipality of Greater Shanghai (map 5), a new administrative unit covering all of Shanghai outside the foreign settlements, responsible directly to Nanking and independent of local authorities. (It totalled 320 square miles, most of which remained open rural country outside the conurbation.) Second, the so-called International Settlement, which had originally been British and which was opened to all foreigners in 1854. This was the largest and most populous single political unit within the conurbation, and it included the city's commercial core, most of its manufacturing, and most of its shipping frontage. Third, the French Settlement, usually miscalled the "French

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Nanking
is above the delta proper, and its water connections are limited compared with those of its delta rivals. It has profited primarily from its location at a break in transport routes (including China's major north-south railway, which breaks at the Yangtze — map 8), and from its periodic function as a political capital.

All three cities have been hampered in their modern development by the lack of harbors adequate for ocean ships. At Hangchow an impressive tidal bore and many shoals in Hangchow Bay preclude use of the Chientang estuary by ocean shipping, and the river itself is navigable only for small boats. Soochow, once a maritime trading center, is now effectively land-locked, and was in any case superseded as a port city by Shanghai by at least the eighteenth century A.D. Nanking, 210 miles from the sea, must contend with silting, river currents, and an exposed anchorage. Both Nanking and Hangchow are handicapped as commercial centers, especially in a region where most goods move by water, by the rugged country around them (map 5), which contrasts with the extensive lowland focused on Shanghai. While all three of these cities were larger than Shanghai before the opening of China to foreign trade and to Western commercial exploitation, they were quickly outstripped by Shanghai under the new economic conditions, where access by water to the entire Yangtze basin and to the major ocean lanes of world commerce gave it a decisive advantage.

The city lies topographically at the focus of the east China lowland, converging on it from both the west and the north, and of the Yangtze basin as a whole (map 2). The river and its tributaries, draining the productive heart of China, all feed ultimately to the mouth of the Whangpoo. In the mainly pre-industrial economy of China, the great majority of goods moving beyond purely local markets do so by water. No other location can marshall a fraction of the advantages of Shanghai on this crucial point.

Of China's two other major river systems, the Huang (Yellow) in the north is navigable for steam launches for 25 miles above its mouth and for a small part of its course through Honan, but it is otherwise useless for navigation except in short stretches by small boats. The Hsi (West) River in the south is navigable for some 230 miles in the high-water season (spring and summer) for vessels

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505 drawing fifteen feet and for the same distance at low water for vessels drawing six feet. Smaller steam launches use the river for about 700 miles at all seasons. The Hsi system, however, drains only about 210,000 square miles, and contains no such extensive lowland as the Yangtze basin (map 2).

On the Yangtze there is an all-year ship channel for 5,000-ton ships as far as Hankow, 600 miles from the river's mouth, and a summer (high-water period) channel to Hankow for 10,000-ton ships. Above Hankow, permanent steamship service is maintained as far as Chungking, 1400 miles from the sea, by vessels up to 2,000-tons, and river steamers also operate to Suifu (Ipin, Süchow), 150 miles farther upstream where the Yangtze leaves the mountain mass of central Asia and is joined by its navigable tributary, the Min, from the western part of the Red Basin of Szechuan. Map 4 shows the extent to which the river's tributaries are navigable by different sized ships (Suifu on this map is referred to as Süchow). The total of inland waterways navigable from Shanghai by junks at all seasons (excluding the canals of the delta) is nearly 30,000 miles, reaching approxi-
● 434 mately 200,000,000 people. This transport network is reflected in the fact that Shanghai between 1865 and 1936 handled between 45 and 65 per cent of the total foreign trade of China by value.

503 The Yangtze system feeding Shanghai is reproduced in miniature
505 within the delta itself (map 5). A maze of canals dissects the fertile triangle, connecting with natural waterways to form through water links between every village and town in this area and from
[312] all of them to Shanghai. The canals are used primarily for transport, but they also serve as sources of irrigation water for wet paddies and as community water supplies, in addition to providing drainage, which may have been their original purpose.[2] The alteration of the natural environment which the canals represent has been in progress for at least the last 2,000 years, and now constitutes probably the largest concentration of artificial waterways anywhere in the world.

When the canals are added to Tai Lake and the chain of smaller lakes to its east, the Yangtze, the Whangpoo, Soochow Creek, and many smaller rivers in this area, the landscape becomes an enormously magnified Venice. Within a radius of at least 100 miles from Shanghai it is possible to go from any village or town to any other

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The port of Hong Kong however owes its ascendancy as much to its political status as to its physical advantages. Acquired by the Treaty of Nanking in 1842 at the close of the first Anglo-Chinese war as a British rival to the Chinese-controlled trade at Canton, it has since its founding served as an entrepôt for the entire China coast. Since at least 1865 it has transshipped annually between 20 and 25 per cent of China's total foreign trade by value, aided by its treaty status as a free port.* Hong Kong has nevertheless yielded first place as a port to the greatly inferior harbor of Shanghai, located on the mainland and more closely oriented to China's productive areas and transport routes.

The coastline becomes emergent at about the mouth of the Chientang River in Hangchow Bay. There is only one natural harbor on the coast north of Hangchow used regularly by a large volume of ocean shipping: Tsingtao, on the rocky promontory of Shantung. Chefoo, also on this promontory, has a good, though somewhat shallow, natural harbor, but it has been relatively little used or improved. Weihaiwei, near the tip of Shantung and thus one of the most seaward ports in China, is a largely artificial harbor constructed by the British at the turn of the century for their naval vessels (following a decade of "concessions" by the crumbling Ch'ing government to the European powers), but its large protected roadstead has attracted little commercial shipping.

It is an unfortunate circumstance that these few adequate harbors are in effect isolated from the body of north China by the crystalline mountains of Shantung and by their out-of-the-way location. This situation is responsible for the small importance of Chefoo and Weihaiwei as ports, as well as for the fact that they still have no railway connections. Shantung, originally an island in the Yellow Sea, has been land-linked by silt deposition from the Huang, yet its harbors are economically cut off from the mainland. In a more highly industrialized economy, these harbors would probably be more important, but the almost complete lack of water transport links between them and the north China hinterland decrees for them under present conditions a relatively minor role.

Tientsin, the leading port of north China, forty miles from the sea on the Pei River, fight a losing battle against silt. Two rivers flow-

* Hong Kong is not included in the customs figures for China.

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FIVE

# The Opening of the City to Foreign Trade and its Early Development

## *Canton and the Treaty Ports*

The treaty ports * were an answer to the expansionist foreign pressure for trade with seclusionist China. The Ch'ing government (1644–1911) hoped that by granting trade privileges only in these cities it could confine the scope of the Westerners and protect the body of China from their disturbing activities. But when the Canton system was broken by the Anglo-Chinese war of 1841–42, the foreigners envisaged a continually expanding trade with the potentially immense China market. Sir Henry Pottinger, chief of the British delegation at the Treaty of Nanking, stated that the treaty had opened to trade "a market so vast that all the mills of Lancashire could not make stocking stuff enough for one of China's provinces." [1] Western economic enterprise, once given a foothold and an opportunity under its own laws to buy and sell with the Chinese, was a dynamic growth which could not be checked by treaty provisions.

The Canton system of the eighteenth century, under which the British East India Company and later private American firms were permitted to establish trading factories in a limited area of the city set aside for them, was an increasing annoyance to foreign merchants. Several diplomatic missions to Peking, including that of Viscount Macartney in 1793 and of Lord Amherst (who was not even received by the court) in 1816, all failed to obtain a relaxation of

* Canton, Amoy, Foochow, Ningpo, and Shanghai were opened to foreign trade by the Treaty of Nanking in 1842, and eleven further ports, including Hankow, Kiukiang, Chinkiang, Nanking, and Tientsin were added by the Treaty of Tientsin in 1858, although the actual opening of Nanking was deferred until 1899, a reflection of its poor location compared with Shanghai (see map 1).

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439 restrictions on the trade at Canton or the opening of further ports
648 to foreign trade. These changes finally came about only as a result of
175 the Anglo-Chinese war of 1841–42. Under the old system at Canton, foreign traders were virtually confined to their trading factories, were forbidden to bring in women or arms, and were allowed in Canton at all only during the trading season, which largely as a result of monsoon winds essential to overseas trade movements by sailing vessels, and particularly favorable to shipping in and out of Canton, lasted from September to April. However, the foreigners thus avoided the uncomfortably tropical summer in Canton. They spent the hot months for the most part in Macao, a remnant of the once extensive Portuguese empire in the East, at a distance of some 75 miles southeast of Canton and on the tip of a hilly and narrow peninsula jutting into the sea, where the breeze seldom failed.

439 Most cramping of the restrictions was that requiring all foreigners
648 to trade only through the Canton merchants' guild, or Cohong, es-
175 tablished with official support in 1720 as the principal instrument for
441 controlling the foreigners, armed with full governmental powers of enforcement of the factory regulations, as well as the monopoly of trade with the foreigners under conditions which yielded them enormous profits. Disputes between Chinese and foreigners arising out of the trade were settled by the Cohong, and protests against abuses could be made by foreigners to the Chinese government only through the Cohong.[2]

439 One of several attempts to break out from this system independently of the Government at Peking was made in 1832, when the British East India Company (shortly before its monopoly of the British trade with China was removed by Parliament in 1834) sent the ship *Lord Amherst* with a commercial mission under Hugh Lindsay (with the Rev. Karl Gutzlaff as interpreter) to request trade privileges from the local officials at other ports on the China coast. Lindsay was refused entry at Amoy, Foochow, and Ningpo, but he obtained an interview with the taotai (Intendant of Circuit, or chief local official) at Shanghai. The taotai informed Lindsay that Canton would remain the only port where foreigners could trade, but Lindsay was enthusiastic about the possibilities of Shang-

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hai and his report indicates that its location had already made it a large trading city.[3]

He counted 400 junks, averaging between 100 and 400 tons, entering the port of Shanghai weekly during July. If this count was representative of the whole year, it makes Shanghai at that time one of the leading ports of the world.[4] Lindsay stated that the native trade of Shanghai was greater than the total trade of Canton, and described the large wharves and warehouses, and the remarkable accessibility of the port to the hinterland. While the trade was primarily domestic, it included large numbers of junks from as far as Manchuria and Kwangtung, and relatively smaller numbers from Java, Indo-China, and Siam. "The advantages which foreigners would derive from the liberty of trade with this place are incalculable . . . It is the seaport of the Yangtze River and the principal emporium of eastern Asia."[5]

Lindsay noted that British textiles brought in via Canton were on sale in Shanghai shops, and he saw a market for British woolens in this colder climate, a market for which the British had long been hoping since they had been able to exchange only Indian opium in any appreciable volume for their purchases of tea and silk.* Multiplying the estimated population of the Yangtze basin and north China by the expected consumption of woolens, Lindsay voiced one of the earliest expressions of recurrent trade dreams about the China market, none of which have yet materialized on the scale hoped for. He also commented on the extensive crops of cotton within sight of the city, the carding, spinning, and weaving of cotton cloth in every home, and the superior quality of the nankeen cloth made at Shanghai and exported from the city. While this did not appear to discourage him about the prospects for imports of British textiles (which until about 1840 remained inferior in quality and dearer in price than Chinese nankeens),[6] he counted it another advantage in trade with the city.† Lindsay concluded that "considering the extraor-

* For a recent study of the familiar problems of the China trade before 1842 and its balance of commodities and payments, see Michael Greenberg, *British Trade and The Opening of China 1800–42* (1951).

† An 1850 account says that Shanghai's production of cotton cloth supplied "several of the neighbouring provinces." W. H. Medhurst, *A General Description of Shanghai* (1850), p. 15.

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dinary advantages which this place possesses for foreign trade it is wonderful that it has not attracted more observation."[7]

The lack of attention to Shanghai of which Lindsay complained had been beyond the powers of the foreigners to remedy, as Lindsay discovered for himself when his request for trade privileges there was refused. The tension at Canton finally resulted in open hostilities nine years later. Early in the course of the war of 1841–42 the British occupied the Chusan Islands at the mouth of Hangchow Bay, and interest was revived in making that well-protected site the principal base for British trade, as earlier surveyors, including Lindsay, had suggested.* However the further progress of the war required British occupation of the mainland ports, and a fleet under Sir William Parker, after taking Amoy, Foochow, and Ningpo, arrived off Woosung June 13, 1842, and captured the forts commanding the mouth of the Whangpoo. The British planned to invade the Yangtze valley and by appearing in force on the river and capturing Chinkiang block the movement of rice via the Grand Canal to Peking.

Shanghai was taken, and then evacuated by the troops on June 23, in order to concentrate on the advance to Chinkiang and Nanking. The treaty, signed at Nanking on August 29, created the treaty ports already named, where British merchants and their wives could reside permanently, with their own consuls, and importing goods into China under a fixed and nominal tariff (it averaged about 5 per cent *ad valorem*) without any requirement to trade through a Cohong or under official supervision. Article II of the treaty contained the provision that "British subjects shall be allowed to reside, for the purposes of carrying on their mercantile pursuits, without molestation or restraint, in the cities of Canton, Amoy, Foochow, Ningpo, and Shanghai . . . Her Majesty, the Queen of Great Britain (etc.) will appoint superintendents or consular officers to reside at each of the above mentioned cities to be the medium of communication between the Chinese authorities and the said merchants . . ."[8]

No other mention was made in the treaty about foreign rights of

* This plan was not abandoned in favor of Hong Kong until the very end of the war.

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not employ their own agents.[11] At Shanghai, Consul Balfour found himself unwittingly involved in an attempt to create a local Cohong when after some difficulty in finding a house available for leasing as the consular residence on the day after his arrival in November 1843, he accepted the offer of a prosperous Chinese gentleman. His landlord leased him a large house in the Chinese city, and then established himself in the gate house where he carefully observed the comings and goings of his tenants. When Balfour was approached by his host on trade matters, it was revealed that the gentleman was a prominent Shanghai merchant and that by agreement with the taotai he had planned to acquire a monopoly of trade with the foreigners and to keep them conveniently under supervision in polite house arrest. Balfour quickly made other housing arrangements, and in 1846 moved the consulate to quarters rented outside the city in the foreign leasehold.[12]

By the end of 1843, eleven foreign trading firms were in business at Shanghai, most of them branches of British and American firms originally established at Canton. The new conditions under which they now operated were unique in the history of the China trade. Escape from the Cohong meant moreover a large saving in customs duties. Average total duties per ship exacted at Canton between 1800 and 1840 were estimated by the foreign merchants at 240,000 taels, of which 200,000 taels represented officially connived-in "squeeze." (The tael was a unit weight of pure silver which remained fairly constant from 1800 to 1860 at the equivalent of seven shillings.) At Shanghai the merchants estimated in February 1844 that since the port had been opened average total duties per ship had been 50,000 taels, of which only about 15,000 represented "squeeze."[13] During 1844 a total of 44 foreign ships entered and cleared the port, and by 1855 the figure had risen to 437.[14]

The three great trade commodities of this period were tea, silk, and opium (tables I and II), and for all of them Shanghai was advantageously located. The major silk-producing regions of China lie in the lower Yangtze basin. Tea for export was grown primarily in the belt of hills which forms the Yangtze divide on the south, and waterways connected the northern slopes of this region (where

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the best teas were grown) with Shanghai more easily and directly than with any other ocean port. Opium could be distributed domestically to greater advantage from Shanghai, via the Yangtze, than from any other coastal port. In 1846, within three years of its opening, 16 per cent of China's export trade passed through the city, and by 1861 its share was 50 per cent.[15] 439

With its natural advantages, and doubtless helped as well by the veiled continuance of the Cohong system at Canton into the 1850's, Shanghai overtook its nearest rival in total value of foreign trade in 1864, two years after the effective opening of the Yangtze to steam navigation. By 1870, Shanghai was responsible for 63 per cent of the total external trade of China by value, as against 13 per cent for Canton, still its closest competitor. The opening of Japan to foreign trade in 1859 brought into play the locational advantages of Shanghai for this new and rapidly expanding market, and was credited by Shanghai merchants with an important part in the quick rise of the city's commerce.[16]

As imports became more diversified with the relative decline of opium, they were more easily shipped to and distributed from Shanghai as the primate commercial center, but exports, which became diversified more slowly, could in many cases move out as cheaply from other ports which might in particular cases be better oriented to production areas. This situation was of course the usual one for the movement of commodities into and out of any trade area. The accompanying table shows Shanghai's place in China's foreign trade from 1870 to 1930, by value percentages of China's total external trade in each category passing through the city.[17]

| | Imports | Exports | Total Foreign Trade |
|---|---|---|---|
| 1870–1880 | 65% | 59% | 62% |
| 1880–1890 | 58% | 48% | 53% |
| 1890–1900 | 56% | 52% | 54% |
| 1900–1910 | 54% | 48% | 51% |
| 1910–1920 | 51% | 45% | 48% |
| 1920–1930 | 50% | 40% | 45% |

Robert Fortune, an English botanist sent to China by the Royal Horticultural Society to collect plants and seeds of ornamentals not found in England, spent most of November and December of 1843

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439 in Shanghai, and visited it again late in 1848, this time under commission from the British East India Company to introduce the tea shrub into India. (He also made two later trips to the Yangtze basin, in 1853–1856 and 1861–62.) He was as much taken with the natural advantages of the place as Lindsay had been, and provided a neat and prophetic summary of the factors which have been responsible for Shanghai's growth:

> No other town with which I am acquainted possesses such advantages. It is the great gate to the Chinese empire and a place of vast native trade . . . The convenience of inland transit is unrivalled in any part of the world. The country is one vast plain intersected by many rivers, and these again joined and crisscrossed by canals, many of them nearly natural and others stupendous works of art. The port of Shanghai swarms with boats of all sizes employed in the inland traffic. Since the port has been opened these boats bring down large quantities of tea and silk and return loaded with the manufactures of Europe and America which they have taken in exchange. From what we know of the geographic nature of the country there can be no doubt that all the green teas and most of the black can be brought to Shanghai at less expense than they can be taken to Canton or any of the southern towns. The large silk districts of central China are also close at hand. The proximity of Shanghai to the large towns of Hangchow, Soochow, and Nanking forms a further advantage. Lastly, viewing this place as an immense mart for our cotton manufactures, which we already know it to be, there can be no doubt that in a few years it will not only rival Canton but become a place of far greater importance.[18]

162 Fortune however estimated the population of Shanghai in 1843 as only 270,000, while he gave figures of one million for Hangchow and about 500,000 for Soochow, Nanking, and Ningpo. He credited six other delta cities with populations equal to Shanghai's (Sungchiang, Chiating, Changshu, Kashing, Huchow, and Wusih — map 5).

361 Chinese Shanghai had risen as the port of Soochow, from a small fishing village at the junction of Soochow Creek and the Whangpoo. When silting, and presumably advance of the coastline, made maritime access to Soochow impossible by the eleventh century A.D. despite the canalizing of the Creek's lower course in

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stables.[20] Within a few years bricks began to arrive in ballast from England, and the brick work prominently displayed in verandah arches facing the Bund provided an indication of the search for Chinese markets for foreign goods in return for China's wealth of tea and silk. This architectural style, common to all the nineteenth-century treaty ports in central and south China, was wittily and fittingly christened the "Compradoric," for it was a necessary blend of Chinese with foreign methods.

The larger foreign firms had two or three partners and eight or ten foreign clerks, plus fifty or sixty Chinese staff (with families), all living in the compound. Among the foreigners there was a notable preponderance of Scots, including the partners of Jardine, Matheson, Ltd., the largest trading firm in Shanghai and known universally as "the muckle house." Apparently the enterprise of these perennial pioneers had conquered Shanghai as it had conquered London. William Jardine, the firm's founder, had been a surgeon on one of the East India Company's ships trading to Canton. He found trading more profitable than healing, and in 1828 persuaded his compatriot James Matheson to join him in his new company at Canton. A Jardine ship carried the first cargo of "free" tea from Canton after the old Company's monopoly was removed by Act of Parliament in 1834. William Jardine was said to keep only one chair (his own) in his office, to encourage his clients to state their business and leave.*

All the large foreign trading firms were divided into six departments: 1. tea; 2. silk; 3. "Manchester goods" (predominantly cotton piece goods); 4. shipping and insurance (understandably a profitable enterprise); 5. land and house agency; 6. "muck and truck" (all the other trade goods, which seldom amounted together to more than 5 per cent of any firm's total goods transactions).† Each

foreign firms in Shanghai found compradores no longer necessary as employed agents. By that time the compradores had taught them almost as much as they had unwittingly taught the compradores.

* See Greenberg, British Trade, for a detailed account of the history and operations of this and other private firms in the Canton trade, based on contemporary letters and business records.

† Until 1890, overseas exports in this category were primarily hides, leather, bristles, horsehair, China grass, and art objects; imports, aside from opium and textiles, were largely limited to hardware, cotton yarn (for Chinese household and small-scale industry), and machinery.

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442 foreign firm employed a tea expert, usually a foreigner, who went
439 every year in the tea season of late April and early May to the local collecting centers in the hinterland at Kiukiang, Hukow, Hankow, Siangtan, and Hangchow (map 9), where he made his own selection and bought according to the anticipated state of the London market. By the time of the Treaty of Tientsin in 1858, the original provision that foreigners must not be away from the treaty ports for more than one day had yielded to foreign assertiveness and the demands of trade. Under the new treaty, foreigners were permitted free movement to all parts of the empire, and required a passport only beyond 100 *li* (approximately 33 miles) from the treaty ports.

For the silk trade at Shanghai, there was also an expert attached to each foreign trading firm, again usually a foreigner, but since the main silk-producing areas were in the delta it was not necessary for him to travel so extensively, and he did most of his appraising and buying of silk in Shanghai. Kiangsu and Chekiang silk was considered by these men to be the finest in the world, a quality which they ascribed to the favorable effects of the climate and soil on the growth of the silk worm and on the excellence of its diet of mulberry leaves. The silk was brought to Shanghai by Chinese silk merchants in the city, who bought it at hinterland collection centers, notably Soochow, Wusih, Huchow, and Hangchow.

Much depended on the accuracy of predictions about the London market. In the early days of the Settlement, letters from London arrived via Bombay or Calcutta by the opium clippers, forerunners of the tea clippers, which carried a cargo of such high unit-value that they could sacrifice size and weight to speed. By 1840 they had supplanted the slow-moving and cumbersome East Indiamen of the old Company, and at Woosung they discharged their cargo into hulks anchored in the Yangtze, since the importation of opium had been made illegal for American, French, and Russian nationals by their treaties with China after 1842, and declared illegal for British
[548] subjects by Sir Henry Pottinger in 1843. The opium was illegally distributed from Shanghai by the Chinese dealers to whom it was sold there. Mail was at the same time dropped off at Woosung, and rushed to Shanghai by pony express, whose riders galloped up the

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Bund and slung off at each firm's compound the mail bags addressed to it. After 1860 when a British mail service was begun by steamship to Singapore and Hong Kong, Jardine's managed to get its mail two days before its competitors by arranging for its own line of faster ships to take its own mail from the mail boat at Hong Kong or Singapore while the mail boat was coaling and bring it at full speed to Shanghai, where it was put ashore farther up the Yangtze above Woosung and brought secretly to the firm's offices, thus giving them a valuable jump on buying and price transactions.

This advantage was, however, shortlived, since a telegraph line was completed into Siberia by 1871, and messages could be sent from London to Kiachta on the Mongolian frontier of Siberia, relayed from there by courier to Tientsin, and thence by coastal steamship to Shanghai in three weeks total while the regular sea mail from London, even with Jardine's short cut, took seven weeks. In at least one case these dramatic but often uncertain improvements in communication proved disastrous. Early in 1876, a telegraph and marine cable line was completed to Shanghai via Singapore and Hong Kong, and in June came the news that half of the French and Italian silk-worm crop had been destroyed by violent thunderstorms. This stimulated frenzied buying of silk by the foreign firms, but the cable broke early in July a few days before the London market (which supplied the continent with Chinese silk) collapsed, and two foreign firms at Shanghai were ruined by their continuance of buying in the expectation that the cable would soon bring more good news.[21]

It was an alternately lazy and frenzied life for the foreign merchants during the days when tea, silk, and opium were the only important trade goods and before the advent of cables and steamships. During the "season" of about two and a half months (the silk-buying season lasted from mid-May to late June), foreign merchants worked twelve or fifteen hours a day seven days a week arranging for the buying, transport, packing, and shipping of tea and silk. For the rest of the year they kept leisurely hours, seldom opening their offices before ten or closing them after four, and taking two hours or more for a heavy lunch in the mess. They placed great emphasis on violent exercise as the only way for a Westerner

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to keep healthy in China, and nearly every foreigner in Shanghai rode, hiked, or took part in team sports.

The Chinese were amazed at this waste of calories. "'Belong foreign man custom' they would say as they turned to their diet of rice and cabbages," according to the memoirs of an early foreign resident.[22] Certainly the foreigners ate well, but while they brought spirits and special foods from home at great expense, the bulk of their food came from the delta area, according to the records of the same early resident, who was for a time during the 1870's in charge of the mess at one of the foreign firms and lists the sources and prices of the most important items which supplied it.[23] Foreign merchants and assistants would often be gone for weeks at a time on shooting excursions in the hinterland. Wherever they wanted to go in the delta area they found they could travel by houseboat, to the smallest village or the most remote bird-feeding grounds. And wherever they went they found these waterways clogged with Chinese craft carrying both domestic and foreign goods to and from Shanghai.[24]

W. H. Medhurst, an early British missionary (and later consul) at Shanghai, took a trip into the tea and silk districts of Kiangsu, Chekiang, Anhwei, and Kiangsi in 1845, disguised as a Chinese. His account of the trip laid emphasis on the waterways of this region, and since his journey never took him far from the waterways of the delta or of the Yangtze system, he attributed what he saw over this large area to the whole of China:

> Canals have been dug in all directions, and spread like veins and arteries to almost every part of the empire. As far as the experience of this writer goes, the Chinese have no walled cities or large towns except in places which are accessible by water.[25]

He noted that the major canals, used by grain junks, averaged about 40 feet wide and 6 to 8 feet deep, and that bridges over them were at least 20 feet above the surface of the water at the center of the arch so that the grain junks could pass under them with their masts lowered.

By 1863, the original foreign leasehold at Shanghai of 43 acres had been expanded through agreements with the taotai to a total of

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since only they could make such large investments, and could spread the risk of loss over many distribution centers in the interior. Only the largest firms could also keep prices reasonably uniform throughout the year by balancing seasonal and regional losses against seasonal and regional gains.

These operations could not be conducted by foreign firms from a non-Chinese port (such as Hong Kong, or such as was at one time envisaged on Chusan Island), where customs dues and handling charges would be added costs, and because much of the Yangtze trade can best be conducted by junks which are usable over most of the basin's waterways but are not suitable for coastal navigation. Junks drawing between five and eight feet can navigate both the upper and lower Yangtze (i.e., above and below Hankow) as well as most of the major tributaries and the larger waterways of the delta. Their shallow draft and unseaworthiness eliminate them from coastal navigation; a dual-purpose junk would be an overly expensive carrier. Cargo packed at the Shanghai headquarters of foreign firms for shipment to inland centers can be packaged more cheaply for river transport than would be possible for non-Chinese entrepôts dependent on coastal shipping for their connection with the transport routes of the mainland.*

All of these factors, in particular the advantages accruing to the largest firms from the seasonal variations in water transport facilities, redounded to the benefit of Shanghai, since the great majority of the largest foreign and Chinese firms engaged in the import and export trade had their headquarters there. Hankow was handicapped in its direct foreign trade by the low-water period of winter, during which most ocean ships could not reach the city. Shippers preferred to operate out of Shanghai as the only year-round ocean port for the Yangtze basin.

The advantages of unfettered access to this trade artery were apparent to the early foreign traders at Shanghai before the Yangtze was opened to foreign steam navigation by the commercial section

* A statement from a "businessman of wide experience in China," cited in R. C. Feetham, *Report to the Shanghai Municipal Council* (1931), I, 289–90, makes many of these points. What is discussed here is of course the "break-in-bulk" theory. The statement goes on to say that "fully 80 per cent of cargo delivered to ultimate consumers in China moves via waterways."

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648 439 of the Treaty of Tientsin in 1860. (Large-scale foreign trading on the river was in effect delayed until after 1862 by Chinese recalcitrance resulting in a second British campaign in 1860, this time to Peking itself, and by the progress of the Taiping Rebellion in the Yangtze basin.) Rutherford Alcock, British consul at Shanghai in the early 1850's, was of the opinion that "it is vain to look for improvement in British imports while these great trunk lines of inland commerce [i.e., the Yangtze system] are closed to the transit of our goods."[8] The British campaign of 1858 against the Ch'ing Government, and its sequel in 1860, had as one of its chief objectives the opening of the Yangtze to British trade and the addition of Chinkiang, Kiukiang, and Hankow to the list of treaty ports. All three were opened by 1861, and with free navigation on the Yangtze, Shanghai was at last able to implement its location to the full.

439 Graph 3 suggests the effect of these changes on the foreign and domestic trade of Shanghai. Both total trade and re-exports of foreign goods increased only slightly between 1859 and 1862 owing to the problems referred to in the preceding paragraph, but by 1865 there was a ten-fold increase over the figure for 1859 in the value of foreign goods re-exported to Chinese centers. The total value of trade rose in the same period by nearly 34 per cent. The trade report of the British consul at Shanghai for 1864, commenting on this growth, attributed it entirely to "the large and increasing trade from ports opened on the Yangtze."[9]

The same report pointed out that from a total of 34 million Haikuan taels' worth of foreign imports to Shanghai in 1864, 26 million was re-exported to Chinese centers, by virtue of the city's newly-opened water connections with the interior. Consular trade reports in the early and middle 1860's from the newly-opened treaty ports on the Yangtze indicate that these ports shipped the bulk of their exports to Shanghai for re-export, and received from Shanghai the bulk of their imports of foreign goods, principally opium.[10] Hankow, the largest trade center among the Yangtze treaty ports after Shanghai, despite its channel to the sea for ocean-going ships, carried on its exchange transactions with Shanghai rather than with London, and all of the foreign and most of the

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Chinese commercial houses in Hankow were branches of Shanghai houses.*

The foreign merchants at Shanghai, aware that their trade was increasingly based on the commercial exploitation of the entire Yangtze basin now made possible by the new treaty, combined in 1868 to finance an expedition under the leadership of Alexander Michie and Robert Francis to explore the trade of the upper Yangtze. The leading American firm in Shanghai, Russell and Company, paid the travel expenses of the expedition by steamship as far as Hankow, and the remainder of the expenses were met by the Shanghai Chamber of Commerce, from which body the members of the expedition had been selected.

The report of these delegates, published in 1869, stressed the importance of water transport in the trade of major commercial centers along the Yangtze, and in the overall movement of domestic trade to and from Shanghai. They noted the extensive tea shipments moving via the Kan River and its tributaries and Poyang Lake to Kiukiang and Hukow and thence via the Yangtze to Shanghai. They commented on the widespread water connections of Hankow, via the Han River system, which brought tea, hides, hemp, timber, and vegetable oils for transshipment to Shanghai, and via the Hsiang River system, which brought mainly tea and cotton. Szechuan sent hemp, hides, bristles, tea, vegetable oils, and opium via the Yangtze to be transshipped at Hankow for Shanghai, these goods having originally been assembled at Chungking via the Chialing, Yangtze, and Min Rivers.[11]

British dominance of the trade of the newly-established treaty ports was secure, but the organic connection between the growth of their primary stronghold at Shanghai and a similar dominance of the Yangtze hinterland which fed it was perhaps the most compelling reason for the early development of Britain's traditional sphere of influence in central China and throughout the Yangtze basin. In north China they could better afford to give ground later in the nineteenth century to Russia and Germany, and in the south to

* The British consul at Hankow notes this pattern in his trade report for 1865, which further emphasizes the conditions of Yangtze trade favoring a monopoly by the large Shanghai firms.

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share hegemony to a degree with France, but along the Yangtze British preponderance was the logical accompaniment of Britain's trade investment in Shanghai. Without the Yangtze, Shanghai was merely an indifferent harbor.

Two major changes in trade movements resulted from the opening of the river and its tributaries to foreign navigation, aside from the overall increase in foreign trade moving to and from Shanghai. First, the diversion of the export trade of central China (including the Yangtze basin) from Canton to Shanghai, as indicated above in Chapter Four. Under the artificial Canton system, goods for export from central China were obliged to move across the grain of the country in order to reach the only port where foreigners were permitted to trade. The opening of the Yangtze allowed this trade to drain by its natural channels. Two major routes had led from central China to Canton: one from Hankow to the headwaters of the Hsiang River and over the 1400-foot Cheling Pass with a land portage of 26 miles into the headwaters of the Pei River, and one from the lower Yangtze basin via the Kan River to its headwaters near the Meiling Pass at 1000 feet, with a land portage of 24 miles to the headwaters of a tributary of the Pei (map 4). Canton had drawn its trade goods of silk and tea from central China for export via these two routes, but the opening of the Yangtze short-circuited the bulk of this trade to the much closer port of Shanghai.

Goods from central China began in fact, after the effective opening of the Yangtze in 1862, to move to Canton via Shanghai by coastal shipping instead of by the former overland routes. Chungking in Szechuan, which before 1862 had drawn all of its foreign textiles via Canton, was by 1869 entirely dependent on Shanghai for this supply. The delegates of the Shanghai Chamber of Commerce were sufficiently impressed by this indication of the greatly expanded markets which the opening of the Yangtze created for Shanghai that they succumbed to the old dream of British traders of finding buyers for British woolens. Szechuan, they reasoned, had a climate colder than any of the areas where British trade had theretofore reached, and a boom in the woolens trade there could con-

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sequently be expected. Like the earlier grandiose expectations of the East India Company days, it never materialized.*

Second, the opening of the Yangtze was a leading factor in permitting the increasing native opium production, notably in Szechuan, to acquire the major share of the China market by the 1870's, at the expense of opium imported from India. Opium was not introduced into China by the Europeans. It had been consumed domestically, from both domestic and foreign sources, since at least the early eighteenth century, and the first Imperial Edict against the import and smoking of opium was issued in 1729. Small amounts of the Szechuan production had continued to find their way as far as Canton by overland routes well into the nineteenth century, despite new Imperial Edicts of 1821 and later making opium smoking and trading in opium capital offenses. But by 1868, with free navigation on the Yangtze, Szechuan opium undersold Indian opium in Shanghai by about 40 per cent, although its quality was inferior, and it was already beginning to rival the sales of the imported drug.[12] This was true despite the fact that consular records show Shanghai in 1864 accounting for 72 per cent of China's total imports of opium, by virtue of its access to the central China market.[13] By 1887, the Maritime Customs estimated that opium production in China amounted to 224,000 piculs (one picul equals 133 pounds) (of which Szechuan accounted for 177,000 piculs), as against foreign opium imports of only 67,000 piculs.[14]

Though opium was no innovation of the Europeans, it is true that it was they who first organized its import on a large scale. That the trade was avidly taken up by the Chinese is indicated by the rise of Szechuan opium, as well as by the well-known history and complements of the Canton trade.† Foreigners and Chinese alike were eager

* The woolens consumed in north China have continued to come from local industry, both household and factory, which can produce goods of a quality and price better suited to the China market.

† For a discussion of the role of opium in the China trade before 1842, see Greenberg, *British Trade*, especially chapter 5. He includes an analysis of the conditions within and without China which stimulated it, and of the close relationship between the trade in tea and in opium. The revenues of Great Britain and of India, the profits of the British East India Company and of the private trading firms at Canton, and the viability of the tea and silk trade are discussed as they depended in varying, but significant or decisive degree, on the import of opium from India to

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548 439 for the large profits always associated with an illicit traffic. Chinese edicts against it were matched by foreign pronouncements in the wake of the "Opium War" of 1840–1842 (see above, p. 70) to make the trade doubly lucrative. The Chinese drug dealers profited both from its distribution from coastal ports of entry, notably Shanghai (an undertaking from which foreigners were explicitly barred by their own governments), and also from the growing domestic production and its distribution. (Opium came domestically not only from Szechuan but also from the northwest [Kansu and Shensi] and Yünnan, areas of limited arable land remote from the market where high unit-value production was essential and where local taxes and requisitions added to the incentive to grow opium.) Using both sources Chinese drug merchants built up a system of distribution and marketing which was later to implement the penetration of the China market as a whole by the variety of goods which increasingly entered domestic and foreign trade channels after the opening of the Yangtze.

Shanghai's key role in this process is evident from its command of the Yangtze trade artery, and it was the principal market for the distribution of both imported and domestic opium. The drug trade was profitable, and it was conducted on a very large scale. Concentration at Shanghai played an important part in the process of capital accumulation in the city, which was in turn a significant advantage in its continuing acquisition of commercial (and later industrial) dominance. These aspects of the opium trade have been little studied or described, for obvious reasons. Opium remained a live issue in which important sectors of the economy and important bureaux and personalities have been involved until very recently. One cannot consider the issue closed for China until Communist control had been thoroughly established. But it seems likely that opium played as great if not a greater part in Shanghai's rise than did tea or silk (see table II), and that it continued to stimulate the growth and concentration of capital and commercial activity in the

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China. This trade, with its consequences for commercial development, was largely inherited by Shanghai after the breakdown of the Canton system. For an earlier standard work on opium, see David Owen, *British Opium Policy in China and India* (New Haven, 1934).

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city long after tea and silk had lost their commanding positions. The import of opium into China was legally abolished in 1917 by the terms of an international convention (see below, Chapter Eight), and it disappeared from customs figures at that time. But it was clearly still a powerful generator of capital and trade in the Shanghai of the 1930's. Opium also became a highly profitable export from Shanghai once its import had been officially banned, though as a then wholly illegal trade its volume and mechanics can only be guessed at.*

It also appears likely that the activities of Chinese opium merchants and distributors during the period from about 1800 to about 1870 helped to pioneer the commercialization and integration of the China market for sales of foreign goods, and that the later rapid spread of merchandizing, especially from Shanghai, was in some measure due to this earlier development of the techniques of commercial exploitation. Concurrently, opium continued to flow into Shanghai for domestic marketing and even for export, a trade which under the circumstances was increasingly profitable.

### *Tea and Silk*

However, it was the trade in tea and silk, the two dominant staples of China's export trade until the close of the nineteenth century (table I), whose contribution to the commercial growth of Shanghai is clearest. The city's original near-monopoly as a result of the concentration of tea and silk production in or near the delta was further implemented by the opening of the Yangtze and its ports by the Treaty of Tientsin.

Transport costs for tea and silk by overland routes were high, averaging during the 1860's and 1870's 13 taels per bale of silk (approximately six bales to the ton), and 12 taels per hundred chests of tea (approximately 100 chests to the ton), for 200 miles. Taking the tael at this period as equivalent to about 6s 2d, these rates work out at about £24 per ton of silk (US$.56 per ton/mile), and £21 per ton of tea (US$.50 per ton/mile), as compared with

* See R. d'Auxion de Ruffe, *La Farce de l'Opium* (Paris, 1939), for a somewhat bitter *ad hominem* account of opium smoking and the opium trade in Shanghai, against the background of local and international measures designed to suppress it.

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505 port. Most of the teas from this area could move out more easily
487 by water to Ningpo, or to Hangchow for transshipment to Shanghai. Foochow and Amoy drew their tea for export primarily from the southern part of the chief producing area, by way of the rivers which terminate at each port, and Canton depended for its tea supply mainly on the route through the Meiling Pass. Ningpo, situated on an indifferently navigable river, in fact drew some of its tea for export from the Chientang basin, via a canal from the Chientang ten miles upstream from Hangchow, but even so three portages were necessary between the river and Ningpo.[19]

245 Shanghai could draw tea from almost all of the chief producing area with much greater facility. Tea in China, as in most of the important tea areas of the world, is a mountain or a hillside crop. It is displaced from the lowlands by grain crops, and it is considered by the Chinese that a more fragrant leaf is produced on slopes and at higher altitudes, where drainage is good, nights are cool, and mists are frequent.[20] In the chief producing area, most of the tea is grown at elevations between 1000 and 2500 feet, and was thus necessarily transported by portage to the local curing and collecting centers. From these local centers, however, the tea moved to larger collection places and to ports of export predominantly by water, especially after the Yangtze was opened to foreign trade.

505 All of the leading tea districts of the area producing the best
439 quality teas (map 9) have through water connections with Shanghai, while only a few of them have similar connections with Foochow, Ningpo, or Wenchow. Amoy and Canton have no through water connections with this area except by sea.[21] Hankow acted as a collecting center for the teas of Szechuan, Hupeh, and Hunan, brought there largely by water and largely transshipped to Shanghai for export, although direct exports of tea from Hankow during the late nineteenth and early twentieth centuries amounted to about one quarter of the amount transshipped to Shanghai for export.[22]

245 The tea of central China is grown in the northern and southern
505 highlands of the hill and mountain ranges south of the Yangtze
487 (called by Cressey the "South Yangtze Hills"), with the better quality teas coming from the northern highlands. The tea leaves are

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505 487 producing areas by water, but that many of the routes to Canton began on land and were interspersed with portages. Medhurst also noted that tea was being shipped in large quantities from the northern highlands of the divide to Shanghai, via the smaller tributaries of the Yangtze in Kiangsi and Anhwei.[25] Robert Fortune (see above, Chapter Five) visited the same areas a few years later, also in disguise as a Chinese. His account corroborates in more detail the general impression of Medhurst that tea from nearly all of the collecting centers in the area producing the best quality teas moved to Shanghai by through water routes, while some part of all of the routes to Canton lay on land.* [26]

505 439 By 1867, the British consul at Shanghai, in commenting in his trade report for that year on the greatly increased trade of the port resulting from the opening of the Yangtze, gave his opinion that the greater ease, cheapness, and speed of transport for tea to Shanghai had resulted in a decline in the quality of the tea. He considered that less care was taken with grading and packing the tea for the short haul to Shanghai (where its cost price was of course considerably lower than it had formerly been at Canton), and that it therefore often arrived stale and poorly sorted. This may illustrate in reverse the common association of high unit-value and high-quality goods with high transport costs. He added that before the opening of Shanghai, tea from the northern slopes of the divide frequently spent six months in transit to Canton, but that the average transit from this region to Shanghai after the opening of the Yangtze was approximately six weeks.[27]

However, it was as much the great increase in the volume of the tea trade through Shanghai, in which many more producers were able to enter the export market with the drop in transport costs, which accounted for the decline in quality of the tea. This was no longer a small-scale, specialized, luxury business, but a large commercial enterprise, made possible by uninterrupted water connections. It was clearly these transport advantages of Shanghai as much as its relative nearness to the tea-producing districts which were

* Tea grown along the Hsi-Yangtze divide (the area known as the "Bohea Hills") was necessarily moved to collecting places north or south of the divide by porter.

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responsible for the city's commanding position in the tea trade. Its tea exports rose from one million pounds in 1844 (the year after it was opened to foreign trade) to 80 million pounds in 1855. Smaller amounts continued to be exported direct via Hankow, Kiukiang, Ningpo, Foochow, and Canton, but by 1855 Shanghai accounted for 58 per cent of the total, and in 1864 (two years after the effective opening of the Yangtze) for 64 per cent.[28]

For the silk trade, Shanghai was even more favorably located. From the opening of the treaty ports through the 1930's, there were four principal silk-producing areas in China (map 9): the Canton region, producing so-called "soft" silk; central Szechuan, producing "yellow" silk; northeastern Shantung, producing "tussah" silk; and southern Kiangsu-northern Chekiang.* This last was by far the largest producer, and its silk (known generically to the foreign merchants as "China" silk) was considered by both Chinese and foreign traders to be the finest in the world.† Kiangsu and Chekiang together accounted for about half of the total production of raw silk in China through the nineteenth century and into the 1930's, while the Canton region accounted for about 20 per cent, Szechuan for 15 per cent, Shantung for 5 per cent, and Hunan and Hupeh together for 5 per cent.[29]

The area around Tai Lake was the major center within the Kiangsu-Chekiang silk region. In certain districts there, notably around Wusih, Soochow, and Huchow, mulberry displaced rice as the first crop, and nearly all of the farmers were engaged in silk culture during the six-week worm-rearing season in April and early May. Hangchow was also a leading silk center, and was especially important in silk reeling and weaving. The cocoons were reeled and the silk spun into yarn either in these cities (and lesser centers), or in Shanghai, but nearly all of the silk produced in this

* Silk for export also came in smaller quantities from Honan and Anhwei (notably Wuhu). Hopeh and Liaotung (southern Manchuria) were important "tussah" producers in addition to Shantung.

† The study of the silk industry and trade published in 1881 by the Maritime Customs (Special Series #13) includes an account by the Rev. Mr. Milne, a British missionary who traveled around the delta and a little beyond in the mid-1840's, disguised as a Chinese. He details the nature of silk worms and describes their care and the production of silk according to the traditional Chinese ideas and practices, expressed in picturesque language in the spirit of the Chinese texts.

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231 "China" silk area for foreign trade was marketed in Shanghai, through both Chinese and foreign trading firms, who sold it for 288 export. Steam filatures for the reeling and spinning of silk had largely replaced domestic reeling and spinning by 1920, but this did not affect the concentration of silk marketing in Shanghai, since the reeling centers remained tributary to Shanghai and since the silk-reeling industry was also concentrated, in differing degrees at different periods, in the city.

[177] After the introduction of cotton from India in the Yüan dynasty 231 (1260–1368) and the manufacture of cotton cloth in China on a 439 large scale by the end of the Yüan, this much cheaper fabric largely displaced silk, which previously had been produced in almost every region of China and was universally worn. The quality of the silk also declined. By the end of the eighteenth century only the four major areas listed above were important silk producers, but the great increase in China's foreign trade, especially in tea and silk, which followed the opening of the treaty ports stimulated both the quantity and quality of silk production in these areas, most of all in the chief silk region of the Yangtze delta, where foreign traders were closest on the scene.

231 The leading silk areas within the delta coincide closely with the 505 areas where navigable waterways are most numerous. The upland districts south of Nanking and west of Tai Lake, where waterways are relatively sparse, are largely avoided by silk culture. This is mainly due to the fact that silk culture is a painstaking and time-consuming process which requires prodigious amounts of hand labor. It is therefore heaviest in lowland areas with a dense population, as is the case with nearly all of the silk producing regions of China, but such a location facilitates a virtually exclusive dependence on water transport for marketing the silk. This in turn tends to make Shanghai, as the primate commercial center of the delta, the dominant market for silk exports, since it can draw silk from the producing areas by water transport nearly as easily and cheaply as can inland centers.

Every important cocoon and filature center in the delta has multiple water connections and depends on them for the collection of cocoons and for the marketing of silk. Liu Ta-chün in his study of

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the silk industry makes this clear, and uses the case of Huchow as an example. No less than sixteen navigable waterways connect Huchow with the local silk culture districts, and with Shanghai, where the bulk of its cocoons and spun silk was marketed.[30]

Shanghai was also the primary market for the silk exports of Szechuan, Shantung, and Hupeh-Hunan. Before 1843, and to a lesser extent until 1862, the silk exports of these areas went to Canton via the Cheling and Meiling passes, or from Shantung by coastal junk, but after the opening of the treaty ports, and particularly after the opening of the Yangtze, these exports moved out via the much nearer port of Shanghai. The silk areas of the upper Yangtze basin, notably in Szechuan, are closely related to the Han and Chialing Rivers, or to the Yangtze itself. With free navigation throughout the river system, it was natural that this silk should be marketed through Shanghai.

Before the abolition in 1834 of the East India Company's monopoly of the British trade with China, yearly exports of silk from China averaged under 6,000 bales. By 1840 the figure had risen to 16,000 bales, largely as a result of the new volume of trade by private firms out of Canton.[31] However in 1844 Shanghai, one year after its opening to foreign trade, exported alone 6,433 bales, and by 1855 the figure for Shanghai had risen to 92,000 bales, or over 60 per cent of the total exports of silk from China.[32] By 1864, after the opening of the Yangtze, Shanghai accounted for approximately 64 per cent of China's silk exports, and in 1930 for 62 per cent, as against 29 per cent in 1930 for Canton.[33] Canton was left with only the local silk areas in Kwangtung to draw on, while Shanghai in 1925 drew 30 per cent of its spun silk exports from filatures in the city (whose cocoon supply came almost entirely from the delta), 10 per cent from other delta filature centers, 11 per cent from Szechuan filatures, 15 per cent from Shantung filatures, 9 per cent from Hupeh-Hunan filatures, and 25 per cent from domestic reeling, primarily in the delta.[34] Cheap transportation made it possible for Shanghai to add to its monopoly of local silk marketing for export the silk of all the other leading areas except for Kwangtung itself.

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*Other Trade Goods*

439 Shanghai was fortunate in that as China's monopolies of the tea and silk trade disappeared by about the turn of the century, the Yangtze continued to concentrate there for export a large proportion of the goods which now became the staples in China's more diversified foreign trade (table I). These goods: vegetable oils, hides, skins and bristles, eggs, and fibers, were staple products of the Yangtze basin, and their marketing in Shanghai was as logical as that of tea and silk. In this new trade, Hankow was the principal inland collection and distribution center, but as with tea, its direct exports overseas remained slight, and actually decreased after 1880 when steam navigation on the Yangtze had become firmly established.[35] Hankow sent the bulk of goods destined for export to Shanghai for transshipment.

438 Hankow's water connections enabled it to draw these goods not only from Szechuan, Hupeh, and Hunan along the Yangtze itself but also from Shensi, Honan, Kweichow, and Kwangsi via Yangtze tributaries. Szechuan led all the other provinces in the production of wood oil (t'ung oil), wax and tallow, and bristles, and was a leading producer of hides and skins, fibers, and other vegetable oils. Production of vegetable oils, raw cotton and other fibers, and eggs was also important in the lower Yangtze basin in Anhwei, Chekiang, and Kiangsu. While their production was less localized than was the case with tea and silk, and also because of this scattering, Shanghai had easier, cheaper, and quicker transport connections than any other leading port with these or other producing areas. The Yangtze also enabled Shanghai to exchange its foreign imports (and after 1920 increasingly its own industrial production) for export goods over a wider market and with greater ease and cheapness than rival commercial centers.

669 175 The disruptions of the Taiping Rebellion and attendant local uprisings (1850–1864) were heavy in the Yangtze delta, and the largest military campaigns were fought there. Shanghai itself acted as an invaluable base for the efforts of the Ch'ing government to suppress the rebellion, since with the support of foreign troops and volunteers, the city was able to hold out against a rebel tide which

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firms continued to operate, but under difficulties, and they could not handle more than a small fraction of the normal volume of trade on the river. As a result, sales of piece textile goods in Shanghai had fallen by January 1927, to one quarter of their August levels. The kerosene trade out of the city was badly hit, and large stocks accumulated in warehouses. Imports of Chinese tobacco leaf to Shanghai virtually ceased by January, and forced the closure of several of the large cigarette factories. Egg imports to the city in January were less than 30 per cent of normal. By the end of 1927, with order restored in the Yangtze basin and navigation no longer interfered with, Shanghai's trade with its hinterland returned to normal levels. Both railway lines serving the city remained in regular operation for all but a few days during this period.[37]

In November 1937, in order to hamper Japanese naval movements on the Yangtze, the Chinese Government placed booms across the river at Kiangyin and Chinkiang, and fighting in the delta area and upstream from Nanking further disrupted traffic. The value of Shanghai's foreign trade fell by 76 per cent between July (hostilities began at Shanghai on August 13, 1937) and December 1937, as much because of the interruptions in transport as because of the local fighting, which ended at Shanghai itself in October. During the same period, the total value of the foreign trade of China as a whole decreased by only 2 per cent. Shanghai's relative decline continued through 1938, with a 49 per cent decrease in imports and a 63 per cent decrease in exports over the 1937 figures, while for the same period the total foreign trade of China increased by 8 per cent.[38] With its water connections disrupted, Shanghai could no longer compete commercially with rival centers, which despite the progress of hostilities over nearly the whole of east China by the end of 1938 increased the total of their trade at the expense of Shanghai.

But the disruptions of war should not obscure the fact that the Yangtze basin is the economic heart of China, nor that its river system will continue to be a basic element in China's transport pattern. The city at the mouth of the river will remain a metropolis under whatever conditions the future or the Communist Government of China may impose.

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EIGHT

# The Trade of the Port

439 Statistics make dull reading, but they may often tell an important and otherwise untold story, or illumine facts or ideas already grasped but imperfectly understood. With this latter end in view, graphs 4–8 and tables I–IV combine a great many statistics which would make dull reading indeed but which in this form may be less unpleasant and more expressive. In any case they are essential to an understanding of the history and nature of Shanghai's trade, and as charts they do a more effective job than they could as figures in the text, which they would very nearly bury, but which would mean little without them. The graphs and tables are the body of this chapter, and the text serves merely as the narrator of the events and patterns which they portray.

## *Foreign Trade Since 1850*[1]

The primacy of Shanghai in both the foreign and domestic trade of China was well established by at least 1865, and table III shows that this primacy was never thereafter seriously threatened before the Japanese attack on China in 1937. Shanghai's share of China's overseas commerce consistently totaled about one half from the opening of the Yangtze to foreign trade until the outbreak of full-scale hostilities with Japan. "The heart of foreign trade is Shanghai, and the other ports mere blood vessels."[2]

The export of tea and silk and the import of opium and cotton textiles dominate the greater half of the period since 1850 in Shanghai's, as in China's foreign trade. Despite Shanghai's key location for the trade in both tea and silk, however, the city's overseas imports exceeded its overseas exports in value in every year save two from 1864 (when the complete records of the Maritime Customs begin) to 1936. Until 1925, the excess averaged about 10

[p. 116]

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per cent annually, but between 1926 and 1936, when the growth of manufacturing in Shanghai required increased imports of expensive machinery and raw materials, the annual excess averaged about 15 per cent. This is characteristic of the trade of a transshipment point, which has an advantage in the distribution of imports (especially if they require repacking as well as reloading onto a different carrier) not equaled in the handling of exports, which can

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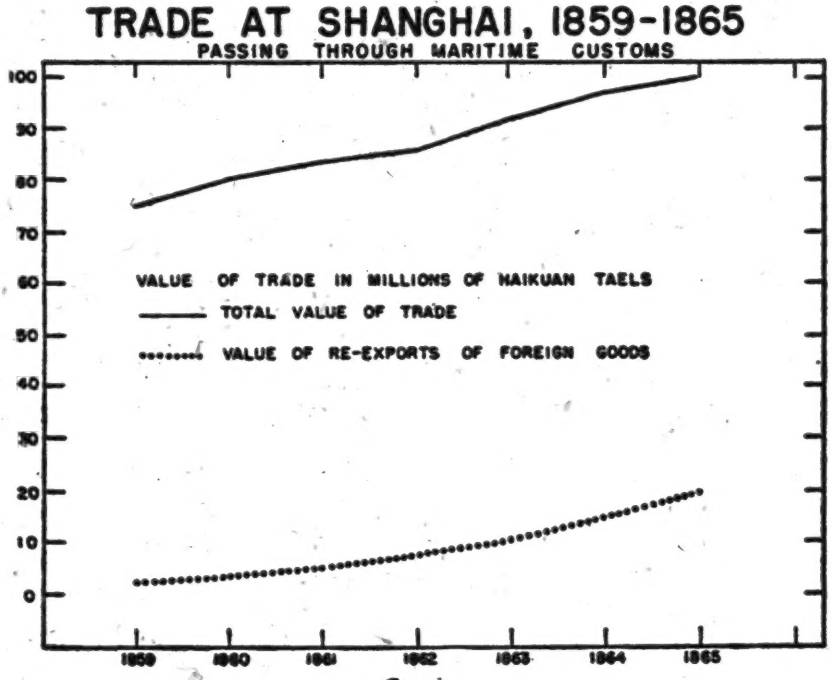


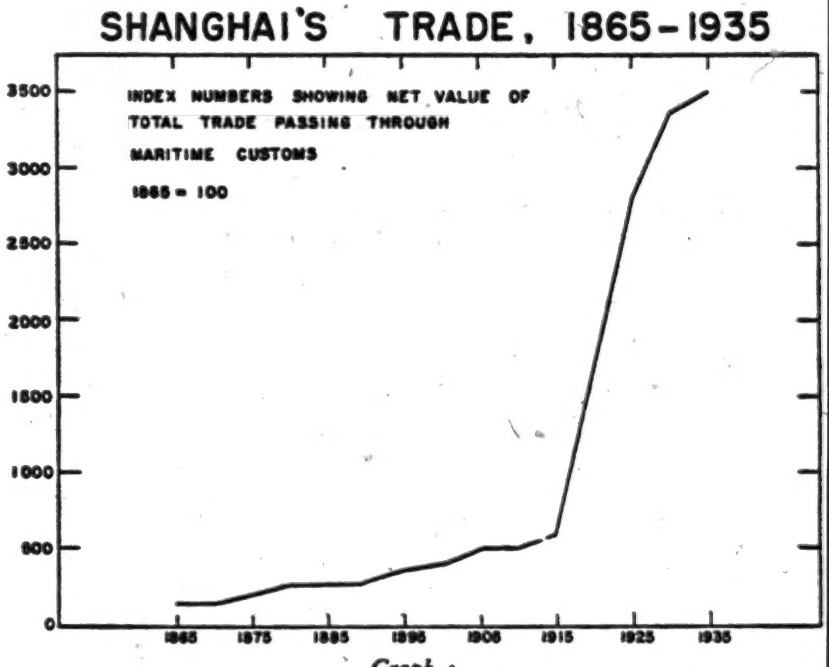

*Graph 3*

often move out in small lots directly from each production area to other regional or foreign markets as finished goods.

The most notable feature of the eighty years between 1850 and 1930 as shown in table I is of course the decline in the export of tea and silk from their commanding positions before 1890 to relatively minor importance after 1900.* While ample reasons can

* In 1868, the United Kingdom, consistently China's best tea customer, took 97 per cent of its tea from China, in 1888 40 per cent, in 1898 20 per cent, and by 1902 only 3 per cent.

439 be found for China's loss of her one-time monopoly of the trade in these two goods,[3] it needs to be emphasized that nearly all such monopolies of essentially agricultural or handicraft production are eventually broken. The cases of rubber, coffee, and sugar are examples of this rule which are familiar to all students of economic history. China held her monopolies of tea and silk probably longer than any other such monopolies have ever lasted. The monopolies




*Graph 4*

were retained long enough to give Shanghai an early start toward trade leadership in China by virtue of the city's favorable location for the tea and silk trade, and by the time that India, Ceylon, Java, and Japan among them had acquired the command of the world market for tea and silk (by about 1900), Shanghai's primacy was secure enough for the city to profit to the full from its equally favorable location for the newly diversified foreign trade of China.

The primary purpose of Robert Fortune's later visits to China in 1848 and 1853–56 (see above, Chapter Four) was the collection, on

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TABLE I

*Exports From Shanghai Through Maritime Customs to Foreign Ports* 439

(Decennially, 1850–1930, by approximate percentages of the total value of such trade in each year indicated.)

| | 1850 | 1860 | 1870 | 1880 | 1890 | 1900 | 1910 | 1920 | 1930 |
|---|---|---|---|---|---|---|---|---|---|
| Raw silk | 52 | 66 | 62 | 38 | 34 | 30 | 26 | 20 | 14 |
| Tea | 46 | 28 | 32 | 48 | 30 | 16 | 10 | 4 | 4 |
| Miscellaneous | 2 | 6 | 6 | — | — | — | — | — | — |
| Miscellaneous raw materials | — | — | — | 10 | 14 | 20 | 16 | 18 | 10 |
| Vegetable oils | — | — | — | — | 6 | 10 | 12 | 16 | 18 |
| Miscellaneous manufactures | — | — | — | 4 | 4 | 8 | 8 | 14 | 16 |
| Textiles | — | — | — | — | — | — | 4 | 8 | 16 |
| Hides, skins, and bristles | — | — | — | — | 8 | 10 | 10 | 12 | 14 |
| Eggs and egg products | — | — | — | — | — | — | 6 | 8 | 8 |
| Raw cotton | — | — | — | — | 4 | 6 | 8 | — | — |
| TOTALS | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Sources: Figures for 1850 and 1860 are estimates, based on Lanning (1923), p. 401, and Bannister (1932), p. 126. (Trade in 1850 did not of course move through Maritime Customs — see Chapter 8.) Data for 1870–1930 compiled from China: Maritime Customs, *Annual Reports and Returns of Trade.*

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TABLE II

439 *Imports Into Shanghai Through Maritime Customs From Foreign Ports*

(Decenially, 1850–1930, by approximate percentages of the total value of such trade in each year indicated.)

| | 1850 | 1860 | 1870 | 1880 | 1890 | 1900 | 1910 | 1920 | 1930 |
|---|---|---|---|---|---|---|---|---|---|
| Opium | 54 | 48 | 34 | 34 | 22 | 12 | 12 | — | — |
| Cotton textiles | 34 | 44 | 50 | 42 | 44 | 50 | 32 | 36 | 8 |
| Miscellaneous | 6 | 4 | 10 | 12 | 16 | 12 | 16 | 6 | 10 |
| Cotton yarn | 6 | 4 | 6 | — | — | — | — | — | — |
| Coal | — | — | — | 6 | 4 | 4 | 4 | 4 | 4 |
| Metals and minerals | — | — | — | 6 | 6 | 6 | 6 | 10 | 20 |
| Machinery | — | — | — | — | — | 6 | 8 | 16 | 28 |
| Petroleum products | — | — | — | — | 4 | 6 | 6 | 8 | 6 |
| Raw cotton | — | — | — | — | — | — | 4 | 8 | 14 |
| Lumber | — | — | — | — | 4 | 4 | 4 | — | — |
| Tobacco | — | — | — | — | — | — | 4 | 4 | 4 |
| Sugar | — | — | — | — | — | — | 4 | 4 | — |
| Wheat (and flour) | — | — | — | — | — | — | — | 4 | 6 |
| TOTALS | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

SOURCES: Figures for 1850 and 1860 are estimates, based on Lanning (1923), p. 400, and Bannister (1932), p. 120. (Trade in 1850 did not of course move through Maritime Customs — see Chapter 8.) Data for 1870–1930 compiled from China: Maritime Customs, *Annual Reports and Returns of Trade.*

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TABLE III

*Foreign and Domestic* Trade of Leading Chinese Ports, 1870–1920*

(Gross values of trade, in millions of hai-kuan taels, landed at or shipped from the leading treaty-ports in China in each year listed.)

439
438

| | 1870 | | 1880 | | 1890 | |
|---|---|---|---|---|---|---|
| | *Foreign* | *Domestic* | *Foreign* | *Domestic* | *Foreign* | *Domestic* |
| Shanghai | 90 | 96 | 88 | 112 | 101 | 136 |
| Canton | 28 | 24 | 30 | 26 | 28 | 24 |
| Hankow | 18 | 16 | 21 | 25 | 14 | 42 |
| Tientsin | 15 | 9 | 16 | 14 | 18 | 25 |

| | 1900 | | 1910 | | 1920 | |
|---|---|---|---|---|---|---|
| | *Foreign* | *Domestic* | *Foreign* | *Domestic* | *Foreign* | *Domestic* |
| Shanghai | 160 | 181 | 316 | 382 | 504 | 532 |
| Canton | 34 | 26 | 47 | 38 | 59 | 46 |
| Hankow | 15 | 52 | 13 | 58 | 13 | 73 |
| Tientsin | 32 | 38 | 64 | 68 | 108 | 117 |
| Tsingtao | 5 | 4 | 15 | 9 | 14 | 12 |

SOURCES: Figures compiled from China Maritime Customs, *Annual Reports and Returns of Trade*.

* i.e., the domestic trade which was recorded by the Maritime Customs, only a part of the total volume of domestic trade at each port, or of China as a whole.

TABLE IV

*Foreign and Domestic* Trade of Leading Chinese Ports, 1925–1935*

(Average percentages of foreign and domestic trade by value passing through leading Chinese ports (exclusive of Manchuria) over the period 1925–1935).

| *Port* | *Foreign* | *Domestic* |
|---|---|---|
| Shanghai | 55 | 38 |
| Tientsin | 11 | 8 |
| Canton | 6 | 4 |
| Hankow | 4 | 6 |
| Tsingtao | 4 | 2 |

SOURCES: Recorded by the Maritime Customs. Data from Jones, 1940, pp. 58–9.

* i.e., the domestic trade which was recorded by the Maritime Customs, only a part of the total volume of domestic trade at each port, or of China as a whole.

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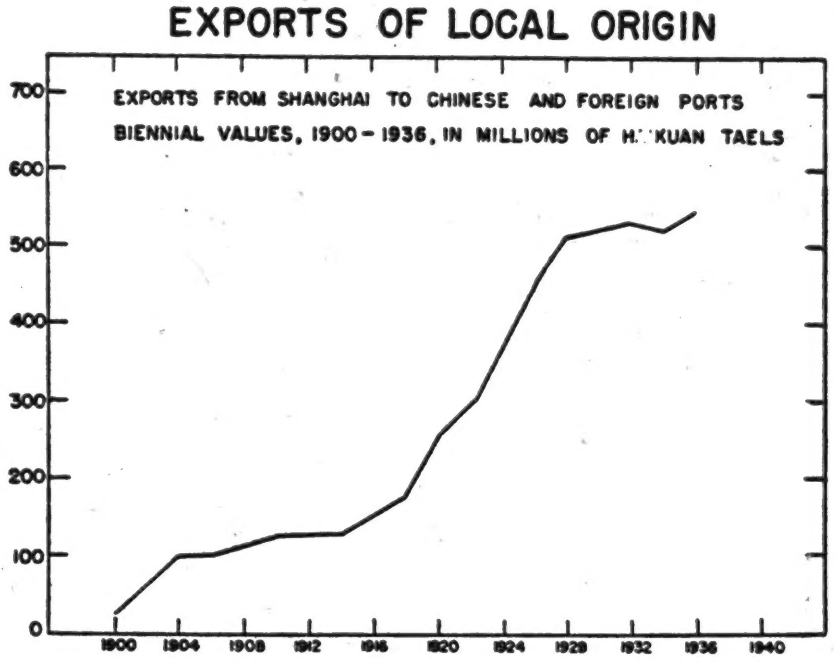
439 behalf of the British East India Company, of information concerning tea cultivation in China, and the procurement of cuttings of tea plants. Fortune was able to transport tea cuttings from China to London by growing them in tubs on shipboard en route, and cuttings were subsequently sent from London to India.[4] From India, tea cultivation spread to Ceylon, and by the end of the nine-




*Graph 5*

teenth century Java and Japan (plus the Japanese colony of Formosa) had joined India and Ceylon ahead of China in total exports of tea.* [5] It should however be pointed out that the total gross exports of both tea and silk from China, and from Shanghai, continued to increase in volume by weight (although not by value, due to overseas competition), from 1865 to 1929, with the exception

* Curiously enough, the Indian tea of commerce was ultimately derived from shrubs found growing wild in Assam rather than from the plants introduced from China by Fortune, a fact which helps to account for the difference between Indian and Chinese teas. (See the account in Sir J. T. Pratt, *China and Britain* (c.1944), pp. 36–37.)

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of three scattered years in which either the tea or silk crop failed.[6] The merchants in foreign trade at Shanghai deplored the success at their expense of tea cultivation in India, Ceylon, Japan, Java and Formosa, and of silk production in Japan. But they were nevertheless able to maintain the volume of tea and silk exports from Shanghai until 1930 at the same time that they were adding to the list of exports a variety of new goods which in the aggregate after 1890 were increasingly more important than tea and silk combined (table I).

Among the new exports were two new virtual monopolies: pig bristles and wood oil (t'ung oil), both produced predominantly in Szechuan and both marketed predominantly through Shanghai.*[7] But together with the increasing commercial exploitation of the entire Yangtze basin after 1860, in which wood oil and bristles played a prominent part, the end of the century also saw the rising importance of manufacturing in Shanghai. Agricultural and animal products (or raw materials in general) remained the majority of Shanghai's exports through 1930, but their prominence continued to decrease after 1890 as textiles and other manufactured goods increased in importance. Raw cotton disappeared from the list of major exports after 1910 as it was increasingly in demand in Shanghai textile mills, and exports of miscellaneous manufactures finally exceeded exports of miscellaneous raw materials in 1930 (table I).

Table II showing imports demonstrates that the relative decline in opium was not due to the prohibition of its import as much as to the spread of opium cultivation in China and the ease with which Szechuan opium could compete in Shanghai with foreign opium (see above, Chapter Seven). The table shows that by 1890 opium accounted for only 22 per cent of Shanghai's imports by value (as against an estimated 54 per cent in 1850), but the import of opium was not legally abolished until 1917 (an international convention in 1911 increased the duty on opium imports and fixed

* China's trade in pig bristles has recently been severely cut into by the use of nylon bristles, and the trade in wood oil has also been badly damaged by the increase in domestic production in the United States (China's chief market for wood oil) during and since the war, and by the use of substitutes and synthetics.

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439 1917 as the last year in which opium could legally be imported). By 1910, opium and cotton textiles combined totaled only 44 per cent of Shanghai's imports, as against 88 per cent in 1850, and a variety of goods was coming in to feed not only the increasingly commercialized and Westernized market of the Yangtze basin for which Shanghai served as the transshipment point, but also Shanghai's growing industry.

In the trade of 1910 as shown in table II, imports of cotton textiles suffered their first notable relative decline, and imports of raw cotton appeared for the first time as a major item, destined for Shanghai's developing textile industry, for which domestic supplies of raw cotton were still inadequate. The disappearance of cotton yarn imports after 1880 indicates the disastrous effects of foreign textile goods imports on the traditional handicraft textile industry. By 1930, the two largest import categories were machinery, and metals and minerals, followed by raw cotton, with cotton textiles reduced to only 8 per cent. Shanghai manufacturing had become the most important determinant of the city's imports.

An even clearer picture of the growth of manufacturing in Shanghai is given by graphs 4 and 5. The first shows dramatically the coincidence between the boom in Shanghai manufacturing attendant on the removal of overseas competition during the first world war (and continued through the 1920's), and the meteoric increase in the trade of the port as a whole from 1915 to 1930. The second shows an equal correlation between the growth of manufacturing in Shanghai and the quintupling of the value of exports of local origin between 1914 and 1932.

Between 1860 and 1930, in sum, Shanghai, as the primary focus, first of the commercialization of the Chinese economy, and later of its industrialization, changed in its import trade from a position primarily as distributor of foreign consumption goods to its tributary area of the Yangtze basin to one primarily as consumer and distributor of foreign capital goods and industrial raw materials, while in its export trade it changed from the market for overseas shipments of the "noble articles" of tea and silk to the market for overseas shipments of the more mundane products of the Yangtze basin as a whole and of the goods produced by the city's own industry.

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shipment passes" to or from other Chinese ports, even though goods traveling on such passes may be stored, repacked, and reloaded at Shanghai. For all of these reasons, it must be assumed that the trade between Shanghai and the rest of China was considerably greater than recorded, and that the city's role as a transshipment point was thus more important than the combined customs figures would indicate.

With this major limitation, the customs figures nevertheless show that nearly half of the trade of Shanghai was transit trade. Graph 8 shows that re-exports (by value) to Chinese and foreign ports between 1885 and 1935 were consistently more than half of the total value of Chinese and foreign imports combined, and until after 1915 were greater in value than foreign imports alone. Until after 1920, the value of re-exports was more than half of the value of the gross trade, less exports of local origin. The break which comes between 1915 and 1925 is a reflection of the growth of manufacturing in Shanghai, which took increasing proportions of the city's foreign and Chinese imports and produced a sharp rise particularly in the value of exports of local origin, as well as in the value of all other trade categories except re-exports.

Graph 7 gives a similar picture of the city's trade, in terms of volume by weight. Discrepancies with graph 8 are due primarily to the greater weight per unit of value of imported industrial raw materials consumed in the city than of the imported finished goods subsequently re-exported. Nevertheless, re-exports in 1910 totaled about one half of combined Chinese and foreign imports by weight, and it was not until 1920 that manufacturing in the city claimed a majority of all imports by weight. In that year also, original exports equalled re-exports of Chinese goods and exceeded re-exports of foreign goods by weight. Slightly larger proportions by weight of Chinese than of foreign goods were re-exported in all of the three years represented in graph 7, indicating their greater weight per unit of value (predominantly food and unfinished goods) than foreign imports (predominantly finished goods). According to the Customs figures, Chinese imports into Shanghai in 1920 and in 1930 were, in rough order of value: coal, raw cotton, foodstuffs, raw

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438 439 silk, tobacco, tea, vegetable oils, hides, skins, and bristles, vegetable fibers other than cotton, and wool.

Graph 6 gives further details on what Shanghai did with its imports from the rest of China, and where it sent the growing volume of original exports produced by manufacturing after 1900. Through the entire period 1870–1930 as shown on the graph, Shanghai re-exported a total of well over half of the value of its imports of Chinese goods, and until after 1920 the proportion averaged about 90 per cent. (The value of foreign imports during most of this period is given in graph 8.) In every year shown on the graph, re-exports abroad were considerably greater by value than re-exports to the rest of China, a reflection of Shanghai's function in collecting from the Chinese hinterland and exporting to industrial economies overseas the assortment of raw materials shown in table I. However, Shanghai's original exports went about half and half to Chinese and foreign ports until 1910, and after 1920 went predominantly to the former, an indication of Shanghai industry's dependence on the domestic market. The sharp rise in Chinese imports and the fall in total re-exports between 1920 and 1930 indicate the increased proportion of the city's imports which were absorbed by manufacturing.

In 1893, the Commissioner of Customs at Shanghai described the trade of Shanghai as follows: "Excepting the small amount used locally, the bulk of the produce which comes here from Chinese ports or from foreign countries goes away again in some channel—the ocean, the river or the creeks—in a vessel which may be a large steamer or may be a little more than a sampan."[10] While the proportion of re-exports increasingly declined as manufacturing developed in Shanghai after 1895, the city's function as a transshipment point continued to depend in large degree on its water transport connections as they are described in the Commissioner's statement.* It is in measuring this domestic trade that accurate figures are unfortunately lacking, since so much of it was carried in

* At the risk of stating the obvious, it should be pointed out that this function of Shanghai as a break-in-bulk (or transshipment) point was an important factor in the rise of manufacturing in the city. This is of course an illustration of Cooley's classic theory (C. H. Cooley, "The Theory of Transportation," Publications of the American Economic Association, IX: 1–148 [1894]).

[p. 129]

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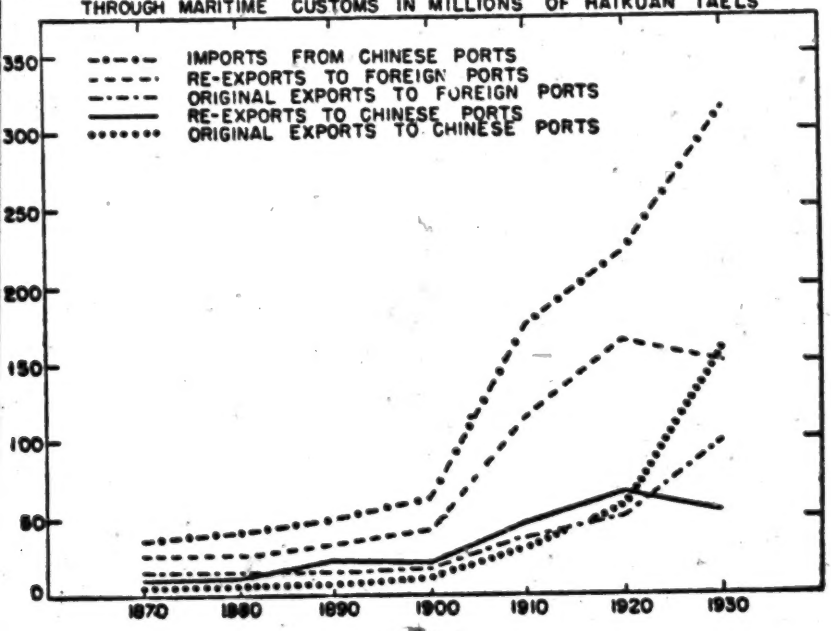
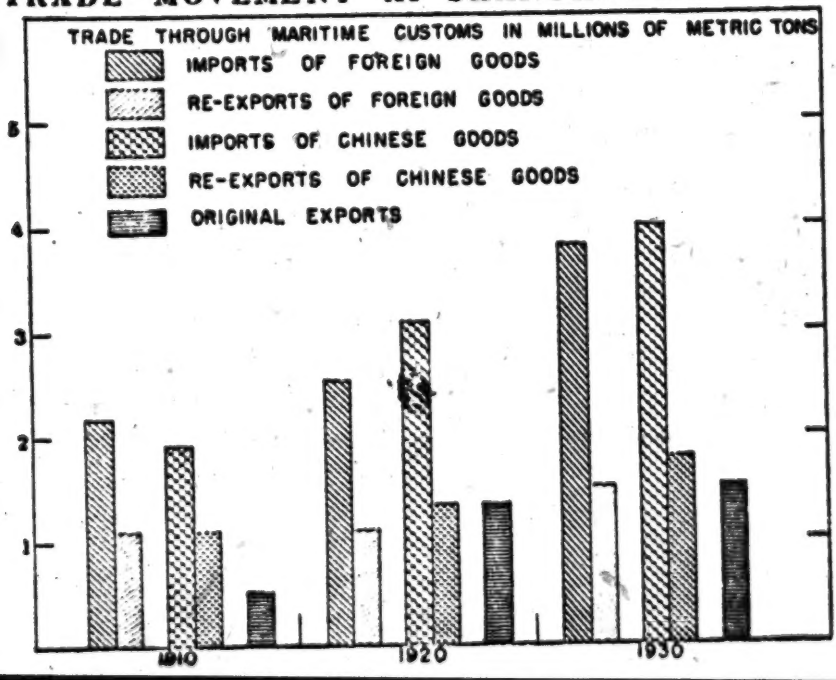
## TRADE MOVEMENT AT SHANGHAI, 1870-1930

THROUGH MARITIME CUSTOMS IN MILLIONS OF HAIKUAN TAELS




*Graph 6*

## TRADE MOVEMENT AT SHANGHAI 1910-1930



438 Chinese vessels beyond the purview of the Maritime Customs. We
439 are obliged to rely on reasoned estimates by customs officials and other observers, and on the partial evidence contained in customs records.

505 Shipping from foreign ports entering Shanghai averaged about 650,000 tons monthly from 1933 to 1936 inclusive, according to the records of the Maritime Customs. During the same period, coastal

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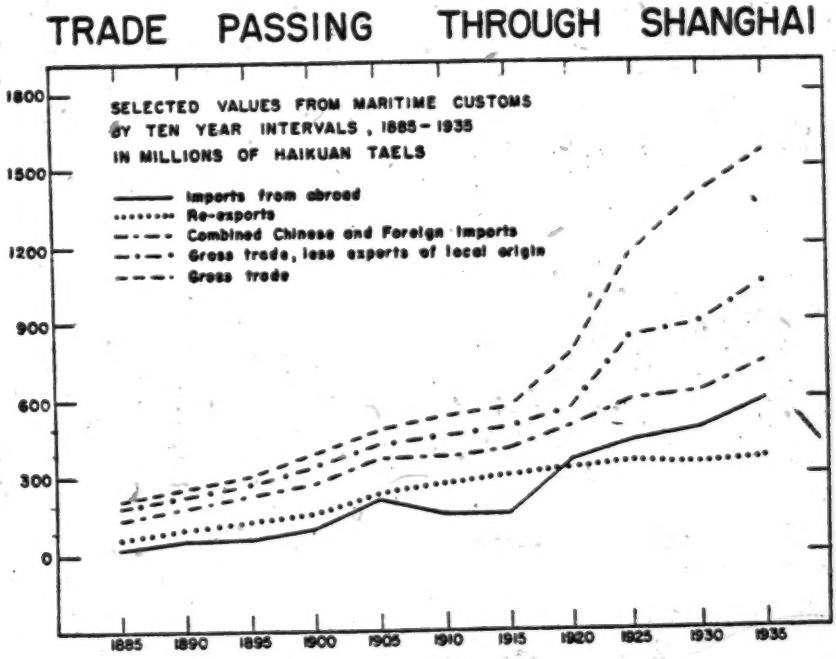


*Graph 8*

505 shipping entering Shanghai through Maritime Customs averaged about 640,000 tons monthly, while shipping entering from inland (i.e., Yangtze River) ports averaged about 250,000 tons monthly. These figures are exclusive of Native Customs, which recorded at Shanghai during 1930 a total of 54,410 junks entered and cleared (no tonnage given).[11] Combining the Maritime Customs tonnage figures, and adding a conservative 20 per cent for the recorded and unrecorded shipments by junk and sampan, gives a total for coastal and inland shipping (640,000 tons plus 250,000 tons plus 20 per cent,

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or 1,068,000 net tons monthly) 40 per cent greater in volume than shipping from foreign ports (650,000 net tons monthly). Among the domestic imports, food and industrial raw materials for the city, and among the exports, products of Shanghai manufacturing (or original exports) probably accounted (as we have seen in the above analysis of graphs 6, 7, and 8) for 50 to 60 per cent of these shipments to and from Chinese ports, but the remainder, or 40 to 50 per cent, was transit trade.*

Other published estimates corroborate the estimates of the relative importance of Shanghai's transit trade given above. The *Journal of The British Chamber of Commerce* at Shanghai in its issue for February 1920 estimates that about 65 per cent of the shipping of all types entering and clearing Shanghai was destined to or from coastal or Yangtze River ports, and only 35 per cent was engaged in overseas trade. Bowman estimates that about 50 per cent of Shanghai's imports of foreign goods were re-exported to ports on the Yangtze—20 per cent to ports below Hankow, 15 per cent to Hankow itself, and 15 per cent to ports above Hankow.† In the cotton trade, Fong Hsien-ting estimates that between 1920 and 1930 Shanghai accounted for an average of 80 per cent of China's total exports of cotton piece goods, although less than 60 per cent of this 80 per cent was produced in Shanghai.[12]

Finally, published citations of the records of the Native Customs at Shanghai add a not inconsiderable figure to the total values of domestic trade as shown in graphs 6 and 8. The Native Customs in 1928 recorded total imports from Chinese ports to Shanghai to the value of approximately 65,000,000 Hai-kuan taels, and total exports from Shanghai to Chinese ports to the value of approximately 46,000,000 Hai-kuan taels, or a grand total of 110,000,000.[13] In 1930, this grand total had risen to over 114,000,000 Hai-kuan

* During the same period (1931–1936 inclusive), the railway line to Nanking carried into and out of Shanghai a monthly average of about 80,000 total tons of freight, and the line to Hangchow a monthly average of about 40,000 tons, according to Ministry of Communications, 1931–1936. These two figures combined are less than 12 per cent of the total domestic waterborne trade as estimated in the preceding paragraph (1,068,000 net tons).

† Bowman's estimates take into consideration the unrecorded trade carried in junks and sampans. Of the major Yangtze ports, only Chinkiang, Nanking, and Wuhu have direct rail connections with Shanghai.

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438 505 [435] that for the most part beyond approximately 75 miles from Shanghai, the time-distance-transport costs make water shipment of rice uneconomic under present conditions. It is correspondingly a logical conclusion that the heavy dependence of Shanghai on this small local rice-supply area is implemented by the Venetian network of canals and natural waterways in the immediate hinterland of the city. Discussions of rice production and marketing in the delta area state that rice moves to both local and distant markets almost entirely by junk or sampan, and that in hilly areas with little or no water transport (such as the country southeast of Nanking, or west and south of Hangchow) the local market price of rice is double the price in the delta lowlands.[16]

The crucial importance of water transport in the pre-industrial economy of China as a whole is heightened in the Yangtze delta area, where water routes are so highly developed. Shanghai lies at the focus of these routes, and of the level terrain of the delta over which transport by water can operate at optimum efficiency. This has been a vital factor in making possible the development of a city of four million people.

438 439 The Shanghai rice merchants divide their main supply areas into three categories: a. local rice (roughly from within a 75-mile radius); b. out-province rice (from Anhwei, Kiangsi, Chekiang, Kiangsu north of the Yangtze, and at scattered intervals from Hunan); c. foreign rice (from the Indo-Chinese peninsula, mainly ex-Saigon, but including small amounts from Bankok and Rangoon).*

435 439 The factors influencing the rice market in Shanghai and its general behavior through the year throw considerable light on how the city is fed. These factors (in addition to the amount and quality of the rice harvest in the main supply areas) may be summarized as follows:

1. The price of foreign and out-province rice. Average monthly prices for the three area categories of rice for the period 1920–1936 were approximately as follows: a. (local rice), CNC$12.00† per

* The export trade in rice from Indo-China, and to a lesser degree from Siam and Burma, is in the hands of overseas Chinese.

† Chinese National Currency — the Chinese dollar.

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picul (the Shanghai rice picul during this period equalled 172 pounds); b. (out-province rice) CNC$12.40 per picul; c. (foreign rice) CNC$12.30 per picul.[17] At these levels the composition of the rice supply tended to remain stable, with local rice accounting for over 80 per cent of the total. Shanghai in general prefers to eat local rice even when its price rises slightly above that of foreign rice, as usually happens during the local planting season and at certain other times (see below). Foreign rice is a different type from the local product and there is prejudice in Shanghai against its taste and cooking properties. Any great change in these relative prices, however, upsets the balance. When foreign rice is relatively cheap, its Shanghai sales are large, but as fresh supplies continue to be ordered by the merchant groups, the Saigon price rises and the normal price and supply situation is restored.

2. The planting season for rice in the delta area, which lasts from early May to early June. During this period, movements of rice to Shanghai from the delta virtually cease, and the city draws on rice it holds in storage, plus foreign imports. The fact that the planting season usually coincides with the wet period of the plum rains means that the Shanghai price of rice rises sharply from late May to mid-June. New supplies of local rice come into the Shanghai market in early July (i.e., from the previous year's crop, which has been stored in the local collecting centers but which is not moved to Shanghai during the planting season, the greatest peak labor period of the agricultural year). The Shanghai price regains its normal level as a rule before the end of the month.

3. The weather. Hot and/or humid weather tends to rot stored rice, and thus depresses the price by forcing sales, or stimulates it by jeopardizing what is stored. Drought seldom affects harvests seriously in the delta with its network of canals to supply irrigation water. The greatest effect of rain is on the day-to-day movement of rice from local production areas to the Shanghai market. The delta waterways are easily flooded over their banks by rain and wind, and by both in combination with the tide in the stretches which receive tidal inflow from the Yangtze or the Whangpoo.*

* This might be deduced from the discussion of the delta above in Chapter Three, and it is referred to specifically in the two journals cited for this account of the rice

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438 The general impression from the foregoing summary of factors, and from the market reports themselves, is twofold: firstly, that there is an ample margin of rice supply for Shanghai, from various sources, at all times at least until 1936; and secondly, that by far the largest part of that supply comes from within a radius of approximately 75 miles and moves to the city largely by water transport. There is some statistical evidence which bears on the problem, and the following figures compiled from the records of the Maritime Customs provide as close a check as can be obtained at present.

### *Local, Out-Province, and Foreign Rice*

438 439 The Food Commission of the Bureau of Social Affairs of the City Government (Chinese) of Greater Shanghai published in 1931 a statistical study of the sources of Shanghai's food supply, using figures taken from the records of the Maritime and Native Customs.[19] The study shows a yearly average during the period 1925–1930 of 780,000,000 pounds of rice brought into the city from all sources. This is stated as a rough estimate because there are no means of recording all of the small shipments arriving from the delta by junk and sampan via the many small creeks and canals which converge on Shanghai.

The total figure is broken down in the table below, according to means of entry into the city.

| | | |
|---|---|---|
| from inland areas via the Whangpoo, Yangtze, or Soochow Creek: | | 560,000,000 pounds |
| from the sea via the Yangtze: | | 160,000,000 pounds |
| domestic origin | 30,000,000 | |
| foreign origin | 130,000,000 | |
| via overland routes (means of transport not specified) | | 60,000,000 pounds |
| TOTAL | | 780,000,000 pounds |

438 497 Railway haulage figures[20] indicate that nearly all of the 60,000,000 pounds arriving by overland routes came in by rail from cities and towns along the Yangtze toward Nanking, Tanyang, and Changchow in particular. Although these places are on or near the Yangtze, they are farther from Shanghai than its main rice supply areas so

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that rail transport to Shanghai can compete with water transport. Given the lines, one might assume that they would carry the most important product of the delta. The surprising fact is that they carry such insignificant amounts. Total figures given by the railway for rice haulage leave little or no margin for highway transport of rice, and we may assume that it is negligible.

The relatively small figure of 30,000,000 pounds given for arrivals by sea from domestic sources is probably accounted for by small-lot junk cargoes from the northern and southern shores of Hangchow Bay, and from the seaward-extending tip of Kiangsu just north of the Yangtze. South of Hangchow Bay all of the coastal areas import rice to balance their local rice deficits, and north China has no rice surplus for export.

Most of the foreign rice imports to Shanghai, according to the market reports referred to above, are ordered by rice brokers from Nanking, Tientsin, Hankow, and Ningpo operating at Shanghai as China's leading rice market, and this rice is then shipped from Shanghai to their respective cities. At certain periods when the Ningpo rice brokers ordered directly from Ningpo for Saigon rice, Shanghai's stores of foreign rice became superabundant and its price fell sharply, even producing a fall in the price of local rice during the planting season, as in May 1929. All of these cities are relatively more dependent on foreign rice imports than is Shanghai. The focusing of delta waterways on Shanghai, and the relatively less easy transport in the hilly or semi-arid hinterlands of the other cities mentioned, are certainly as important as the concentration of rice production in the delta in accounting for this difference.

The greatest period of foreign rice invasion on the Shanghai market for consumption in the city coincides roughly with the planting season, showing a natural lag of about one month during which Shanghai stores of local rice are drawn on. As soon as new supplies of local rice enter the Shanghai market in July, the situation returns to normal and prices are stabilized. Foreign rice is also ordered by Shanghai merchants when other natural or threatened hiatuses occur in the local supply due to weather, civil unrest, short supply in storage, or price stoppages. As a rule, these breaks in the local supply are short-lived or do not materialize.

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438 With the exception of the planting season, the general price and
439 supply situation is dominated by local rice.

Although considerable amounts (unfortunately there is no record
432 of their size) of both domestic and foreign rice entering Shanghai
511 are resold to or originally ordered by other cities, relatively more of the foreign imports fall into this category. The table on page 146 above should therefore be interpreted in the light of the ultimate destination of the several categories of rice shipments arriving in the city. Total sales of rice in Shanghai, for which relatively more accurate figures are kept, provide a different indication of the city's rice consumption. Sales are estimated by the Food Commission's study as averaging annually 860,000,000 pounds during the period 1925–1930.* Their report assumes that the difference of nearly 100,000,000 pounds between this figure and the total recorded entries of 780,000,000 pounds is accounted for by unrecorded shipments arriving by creek and canal from nearby sources. Shipment of much or most of the foreign rice from Shanghai to other cities would leave an even greater gap between the two figures as measures of Shanghai's consumption, and it is logical to assume that this also is filled from local sources.

The figure for total sales, however, may not be an accurate indication of total consumption if we attempt to estimate the average annual rice consumption of a Chinese adult and multiply it by the population of Shanghai in 1930. A Chinese economist [21] suggests four piculs per year (532 pounds), which, using 3,250,000 as Shanghai's 1930 population (graph I) gives a total city consumption of 1,730,000,000 pounds. Or if we use a lower estimate of 400 pounds,[22] which agrees more closely with the writer's experience, and scale down this figure to 380 to allow for children, for other cereals and foods in the Shanghai diet (see above, p. 139), and for the non-rice-eating foreign population of the city (38,000 in 1930), we still arrive
[146] at a figure of 1,235,000 pounds. This is equivalent to about 1,750 calories per day per capita from rice alone, certainly a minimum diet for a Chinese.

* This figure presumably includes spot sales of foreign rice by Shanghai brokers to dealers in other cities, but probably does not include foreign rice delivered in Shanghai on order from other cities.

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We can be sure that the figures for foreign imports recorded by the Maritime Customs are reasonably complete and accurate, since smuggling of rice imports is hardly a profitable venture. If a discrepancy exists (and it is not considered that the calculations of the preceding paragraph do more than suggest the possibility of a discrepancy), it must therefore be attributed to unrecorded entries of rice by water transport from the delta area.

The Customs figures show great yearly fluctuations in the import of foreign rice to Shanghai, with a low in 1924 of 200,000 pounds and a high in 1926 of 300,000,000 pounds. 1926 was marked by prolonged and widespread civil war in the delta, culminating in the capture of Shanghai by the northern expeditionary forces of the Kuomintang in January 1927. The market reports referred to above mention interruptions in water transport to Shanghai from the local rice-producing areas more frequently in that year than in any other. They also describe it as an unusually rainy year, with floods over large areas of the delta during the spring and autumn. The reports make it clear that the rice crop in Shanghai's local supply area was not drastically affected by these conditions and totaled approximately 80 per cent of normal. The interruptions in water transport, however, caused by civil disturbances and weather, made it difficult to get the crop to market in Shanghai. They increased the price of what did come in so markedly that foreign rice was imported in unusually large amounts.

Foreign rice imports returned in 1928 to a more nearly normal level. Subsequently they rose and fell almost as radically in certain other years to give an average for the period 1920–1936 of 70,000,000 pounds yearly (as compared with the 1925–1930 yearly average of 130,000,000 pounds cited above from the Food Commission's Report). The following table lists annually foreign rice imports to Shanghai and notes after years of unusually large imports any exceptional conditions mentioned for those years by the market reports.[28]

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| Year | Foreign Rice Imports (lbs.) | Market Report Comments |
|---|---|---|
| 1920 | 2,000,000 | |
| 1921 | 15,000,000 | |
| 1922 | 40,000,000 | |
| 1923 | 3,000,000 | |
| 1924 | 200,000 | |
| 1925 | 210,000,000 | civil war in the delta |
| 1926 | 300,000,000 | civil war and floods in the delta |
| 1927 | 120,000,000 | civil war and floods in the delta |
| 1928 | 80,000,000 | |
| 1929 | 40,000,000 | |
| 1930 | 40,000,000 | |
| 1931 | 200,000,000 | floods in the lower Yangtze basin |
| 1932 | 120,000,000 | Japanese attack on Shanghai |
| 1933 | 2,000,000 | |
| 1934 | 600,000 | |
| 1935 | 600,000 | |
| 1936 | 300,000 | |

The market reports imply (without giving any figures) that the drop in rice imports after 1932 was related to the fact that Ningpo, Tientsin, Hankow, and Nanking rice brokers decided in these years to order foreign rice directly for delivery to their respective cities without transshipment via Shanghai. But whatever the reason for the fluctuations in rice imports shown in the above table, it is clear that under normal conditions Shanghai could not and did not depend on foreign rice to any important extent. Given free movement of water transport in the delta, it was able to support itself almost entirely on what it drew from its local supply areas. Shanghai's population doubled between 1920 and 1936, yet imports of foreign rice to the city all but disappeared in one third of the years listed in the above table.

There is some evidence that even during the early years of modern Shanghai, before it reached a population of half a million, the city relied primarily on local sources of rice and depended on foreign imports only under unusual conditions. Trade reports of the British consul at Shanghai show large imports of rice in 1862, 1863, and 1864 while the city was for considerable periods besieged by rebel forces of the Taiping army. The consular reports specifically mention elsewhere that water transport in the delta to and from the city

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came to a standstill at frequent intervals during these years.[24] They also mention the Shanghai prejudice against eating foreign rice and state that it is consumed only when local supplies are unobtainable.[25] The Taiping Rebellion was suppressed and Nanking recaptured by the Ch'ing forces in June 1864. By 1865 the Shanghai consular report shows the virtual disappearance of foreign rice imports.[26] Apparently Shanghai was not at that period acting as an entrepôt for rice imports to other cities.

It has been a widespread opinion in China and outside it that the large cities of east Asia, including Shanghai, have depended for their growth on the import by sea of foreign rice from the surplus rice areas of Indo-China, Burma, and Siam. Various students of the problem have gone far enough to examine the rice import figures recorded by the Maritime Customs and to compare them with population growth, finding that in the case of at least the south China treaty ports overseas rice imports have increased faster than the population, and concluding that these cities would starve if overseas imports were cut off.[27] Aside from the fact that much of the foreign rice entering Shanghai is destined for other places, what statistics are available, when added to the evidence of the market reports, demonstrate that the part played by foreign rice is minor in the case of Shanghai.

If Shanghai is indeed an exception in this respect, an explanation may logically be found in the combination in its immediate hinterland of heavy rice production and highly developed water routes. There is no significant correlation between the size of the delta rice crop in different years and imports of foreign rice. The years of large import did however coincide with unusual conditions in the delta which affected primarily the movement of goods by water rather than the actual rice crop. Transportation rather than production would appear to be the key.

While the quantitative importance of foreign rice is minor within the general supply picture, it is certainly true that for recurrent short periods foreign rice has filled large gaps in the Shanghai market. Even in normal years, foreign rice came in during the local planting season, and in years marked by civil disorder or natural calamities in the delta it accounted for a quarter third

439 of Shanghai's rice consumption of something like one billion pounds over the year as a whole. The supply situation was 435 determined by price, and foreign rice was imported not necessarily because local rice was unobtainable but because its Shanghai price at certain periods rose considerably above the Shanghai price of foreign rice.

The price problem posed by the hiatus in local supply during the planting season might have been overcome without bringing in foreign rice, by carefully planned advance buying and by distributing price fluctuations for local rice more widely over the year as a whole. This solution was theoretically in the power of the Shanghai rice merchants, and it has since been applied at least to a degree by the Communist Government (see Chapter Eleven). But it is doubtful whether Shanghai could have existed without foreign rice imports during the periods of civil war and floods which disrupted its water connections with the producing areas. At such times, a high enough price in Shanghai could presumably have attracted to the city from the local areas adequate rice to feed its population despite the difficulties and dangers of water transport, but workers' families and other low-income groups, which constituted the great majority of the population, would have been priced out of the market.

722 The situation after 1936 was complicated by the Japanese invasion 439 and conquest of the delta in 1937. Japanese military requisitions drained off increasing amounts of the delta's rice crop, and fighting over the area reduced total production and hampered the movement of rice to Shanghai. The city became increasingly dependent on foreign imports of rice, and by 1940 relied almost entirely on what it was able to import from Saigon. The unsettled political situation, in which the foreign settlements remained until Pearl Harbor in theory outside Japanese control but increasingly subject to Japanese influence and threatened with total absorption, en- 435 couraged hoarding and speculation. Curtailment of local supplies created an actual shortage, and these factors together resulted in a tripling of the Shanghai price of rice between 1936 and 1941.

[577] Rice riots in the city became frequent, and Shanghai's normal dependence on its local rice supply areas was increasingly borne in upon all of the cities population.

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upon all of the city's population. A leading commercial journal in the city remarked in 1940 that "Shanghai is an island cut off from the normal sources of supply of its staple food," and went on to point out that rice selling at that time in Wusih for CNC$15 per picul of 172 pounds sold for CNC$90 per picul in Shanghai, a price difference which certainly reflects transport difficulties as well as the abnormal situation in Shanghai. The Shanghai price of imported rice quite naturally rose to meet this level.[28] At scattered intervals during this period from 1937 to the end of 1941 when conditions permitted relatively safe water shipment to Shanghai from the delta, local rice appeared on the Shanghai market in large quantities and the price of rice from all sources dropped to nearly its pre-war levels.[29]

The part played by out-province rice is difficult to evaluate. The market reports already referred to indicate that except during the planting season out-province rice is unimportant on the Shanghai market, and at all periods under normal conditions is less important than foreign imports.[30] However, complete figures for out-province shipments of rice to Shanghai do not exist, doubtless due, at least in part, to the fact that much of it moves to the city in small boats, a flow difficult to measure. The market reports give the impression that most of Shanghai's out-province supply comes (in order of importance) from Wuhu (the chief rice center of Anhwei), the lowland areas of Kiangsi connected by lakes and rivers with the Yangtze, the lowland areas of northeastern Chekiang, and the western and southern shores of Tung Ting Lake in Hunan. All of these sources have direct water connections with Shanghai.

If the earlier opinion that Shanghai, among the other treaty ports, depended for its growth on overseas imports of rice is no longer tenable, it is perhaps reasonable to question whether at least Canton may not have profited from its similar location. The Hsi delta is the closest parallel in China to the Yangtze delta, although on a smaller scale. Like the Yangtze delta, it is a heavy rice-producing area which also contains a highly developed network of natural and artificial waterways. Kwangtung as a whole is a rice-deficiency area, and foreign imports of rice to Canton may not be destined entirely for

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consumption in the city. As in the case of Shanghai, Canton may act as an entrepôt for rice imports to other cities.

This may suggest that China as a whole produces enough to feed itself, even by traditional farming methods, if only the food could be transported cheaply enough. As it is, foreign rice moves only to the large coastal cities, because transport costs once it leaves the sea prevent further penetration. The rice comes in because at certain periods it is cheap, and it is cheap relative to Chinese rice primarily because of the difference in transport costs between sea and land. It may be found when full facts are available that the flow of rice to large Chinese cities, which depends on price, is governed predominantly by transport costs, as it is in the case of Shanghai, and that where cheap transport is possible, local sources form the major part of the supply.

*Other Food Commodities*

The Yangtze delta, and more especially the fertile triangle, is a specialized agricultural area, more so than most agricultural regions of China because of its greater degree of commercialization. Its special crop is rice, with cotton, mulberry, and vegetables the only other significant items. Some wheat is grown, but it is of relatively minor importance in the fertile triangle and is raised mainly as a dry-field winter crop between rice plantings. Shanghai's dependence on local sources for rice is thus not matched by the rest of its food supply. The significance of the city's water connections with other agricultural regions is apparent in the fact that in a largely pre-railroad and pre-commercial economy, Shanghai is able to depend on distant sources for many food items in a way, if not to a degree, which is in certain respects comparable to the food supply pattern developed for large cities in the United States and Western Europe.

Shanghai has its own truck- and market-garden area, much as large Western cities have, with the difference that vegetables in particular have always been grown there and that environmental conditions in the fertile triangle are virtually ideal for market-garden-type production. Near most Western cities, soil, climate, and relief must often be fitted with difficulty into the needs of the city for fresh local food. Vegetable production in the fertile triangle

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market. The semi-arid north, where most of China's wheat is grown, has almost no water transportation. Water in the delta has made it possible for wheat production there to become highly commercialized as Shanghai developed into a huge industrial market which water routes made accessible in terms of transport costs for bulk shipments.* This helps to explain the anomaly of Shanghai (rather than Tientsin — a close second) as the largest wheat-milling center in China despite its great distance from China's major wheat-producing areas where other industrial centers, notably Tientsin, also mill flour.

439 505

Domestic sources of wheat, however, accounted for slightly less than half of the city's supply during most of the 1920's and 1930's. Although Kiangsu sources held the commanding position domestically, wheat also came to the city especially from the major wheat area of Shantung, by sea from Tsingtao, where it was collected largely by rail. Shanghai's connections by sea thus implemented its water connections in the delta in ensuring a steady flow of low-cost cereals. Dependence on overseas sources for more than half of its wheat was more workable economically for Shanghai, with its location and harbor facilities, than for any other China port. It was cheaper for Shanghai to bring in wheat from Canada, the United States, and Australia (the three major overseas sources in order of importance) than for Tientsin, without inland water transport, to bring in wheat from the producing areas of north China beyond its immediate Hopeh region of the north China plain.

These imports of wheat from overseas fluctuated considerably from year to year according to price conditions. As in the case of rice, wheat imports were unusually high in years of civil disorder and (or) rain and floods in the delta area, notably in 1926, and decreased markedly in intervening years of political and climatic stability.[33] Again the inference is that stoppages of water transport in the delta were the key factor. As an ocean port near major world shipping lanes, Shanghai could import at a practicable cost whatever goods normally obtained from the delta which temporary cir-

* Water as rainfall, or as irrigation, also keeps wheat yields higher in the delta than the north China average.

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cumstances interfering with inland transport made inaccessible locally.[34]

Other food commodities have a relatively higher unit-value by weight, and are therefore able to move to the city over greater distances, in some cases independently of the water network. Fruit, largely citrus, comes in principally from Chekiang which is just south of the delta but in many areas cut off from water routes by high relief. For this comparatively long-distance overland shipping, the fruit is packed in pine boxes and wrapped in sacking as a protection against frost. In the rugged areas of Chekiang it is carried by porter, and is transferred to junk or sampan when it reaches the edge of the delta.[35] Other fruit sources for Shanghai are even more distant, but most of them can ship to the city over at least part of the route by sea. Grapes and melons come to Shanghai from Hopeh and Shansi, oranges and lichees from Kwangtung and Fukien, and apples from Liaoning (southern Manchuria).[36]

Fresh meat is sold in the city only in limited quantities and is supplied (except for the tiny foreign consumption before 1941, which drew on refrigerated shipping from New Zealand and Australia) almost entirely from the immediate market-garden area. Fish and eggs are far more important elements in the average Shanghai diet than fresh meat, but some cured or salted meat is available from greater distances. Shanghai's main supply of cured hams comes from Chekiang, via Hangchow, and from Kiangsu and Anhwei by Yangtze steamer. Substantial amounts also come from as far as Szechuan and Yünnan, where the making of famous high-quality hams has long been a specialty. The tremendous cost of transporting hams from Yünnan does not apparently make their price prohibitive, although it does limit the market for them.[37] High unit-value is of course the basic factor.

Eggs have become industrial raw materials, in addition to their part in the city's diet, with the development of freezing and drying plants to prepare eggs for export. Fresh eggs are also exported from Shanghai in cold storage to places as distant as the United Kingdom. The Shanghai supply for this varied market is drawn from surprising distances. Within Kiangsu, eggs come to the city from all but two of the *hsien*.[38] These two are in the northernmost part of

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241 from large Chinese and Japanese cities than in the remainder of the rural districts, into which the green fades off beyond 30 or 40 miles. This is particularly true at Shanghai, and is most clearly seen from the air, but it also strikes the eye on the trip by train from Shanghai to Nanking, or in walking through the country.

Night-soil distribution could have provided an automatic increase in crop yields in the immediate vicinity of Shanghai as the city's population grew. In a country where even near the large coastal cities and under a system of relatively commercialized agriculture, chemical fertilizers are beyond the means of the farmers, the heavy use of night soil in the neighborhoods of large cities where it can be purchased at a price even the poorest farmer can afford can be assumed an important factor for agriculture. In the case of Shanghai, it may help to explain the apparent local surplus of rice from the delta which goes to feed the city.

722 433 439 The second problem concerns the future. Shanghai up to 1936 had managed to feed itself largely from its local supply areas. During the disturbed war years, virtually unbroken from 1937 to 1949, it was for long periods forced to depend on imported rice, although the inference is still that under normal conditions the local supply areas remain adequate. But can the city continue to grow on this basis, or will the population not eventually outrun the food supply as it has done repeatedly in the past throughout China? Obviously this is a possibility. It would lead to greater dependence on rice imports, and greater use of railways and highways as these expand and become cheaper carriers, to bring rice and other food into the city from longer distances. In the absence of figures and information for the period since the war with Japan comparable even to the inadequate data for the pre-1937 period, we have no reliable basis for judging whether Shanghai has already entered a new phase in this vital aspect of its economic life. As we can measure it, this huge city is a world anomaly in the pattern and mechanics of its food supply, but as China is increasingly drawn into the world economic pattern, with Shanghai leading and accelerating the change as before, this anomaly, like most of its others, will disappear.

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ings slightly altered to house machinery which is tended by the residents of the house, often members of one family. These small industries are engaged in a bewildering variety of production, and despite their universal under-capitalization, most of them use electrically-driven machinery. "Factories" of this kind produce, for instance, machine tools, cast iron, electric appliances, soap, acids, textile machinery, power presses, boilers, and telephone parts, as well as a long list of light consumer goods, such as flashlights, light bulbs, thermos flasks, clothing, lamps, electric fans, and food products.[9] Despite crowding and poor working conditions, the quality of production in these plants was apparently high. American orders for telephone parts were placed in Shanghai from 1932 to 1935 for export to South America, and the contracts went predominantly to these small household operators.[10] There was a very high rate of turnover among these "factories"; their small scale and small capitalization enabled them to react with great sensitivity to market changes and to crowd or evacuate lines of production alternately as profits varied.*

### *Market and Raw Materials*

Market considerations are the leading factor in the concentration of manufacturing as a whole in Shanghai. As the primate commercial and industrial center of China, not only were capital, relatively trained industrial labor, and electric power available there more abundantly and in most cases more cheaply than anywhere else in China, but Shanghai includes in its trade hinterland half of the country. With the notable exception of the textile industries, most of the raw materials necessary to maintain Shanghai's manufacturing were not available locally in its immediate hinterland. It was the market which attracted and held most manufacturing.

We may logically begin with the exception, the textile industries. Shanghai is located near the center of China's chief cotton-producing

* The *Chinese Economic Bulletin*, published in Shanghai, records many of these changes. For example, there were 11 industrial establishments in Shanghai in November 1930, producing "gourmet powder" (made mainly from wheat flour), 9 in October 1931, and none in June 1932, according to the *Bulletin's* weekly industrial news columns.

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area. Kiangsu alone produced before the war about 30 per cent of China's total annual cotton crop. Shanghai's textile mills at this period consumed an annual average of about 3,800,000 piculs of raw cotton (one picul equals 133 pounds), of which it is estimated that 2,000,000 came from Kiangsu, 500,000 from Hankow, 500,000 from Tientsin by sea, and 800,000 from foreign ports, principally from the United States.[11] The foreign cotton imports were predominantly of long-staple varieties for the weaving of finer-count cloth for which the native short-staple Chinese cotton was not suitable. During the 1930's considerable progress was made in growing long-staple cotton in China from American seeds, including that grown in the Kiangsu area, so that by 1936 foreign cotton imports to Shanghai were only half of what they had been in 1920.[12] The ground thus gained was largely lost during the war years, but reports from China since 1946 indicate that self-sufficiency in all types of cotton is now again within reach, with Kiangsu still the leading producer.[13]

The major silk-producing regions of China are also near at hand. The delta areas of Kiangsu and Chekiang accounted for about half of the total Chinese production of raw silk in the 1920's and 1930's, as they had during most of the nineteenth century, and Shanghai remained the primary silk market of China. When silk-reeling, spinning, and weaving in the delta area became largely concentrated in factories after about 1910, rather than being done as before on a domestic basis, it was logical that the industry should center in Shanghai, as well as in the nearby cities of Soochow, Wusih, and Hangchow.

The rest of the textile industry is less closely related to the sources of its raw materials. About three-quarters of the raw wool used in Shanghai factories before the war came from the grazing areas of northwest China via Tientsin, by sea and rail. Less than one-tenth came from Kiangsu, and it was mainly "dead" wool of poor quality shorn from dead sheep and goats. The remainder was supplied largely from central China, via Hankow, by Yangtze steamer.[14] Ramie and hemp for Shanghai manufacturing came primarily from Hankow, in the center of the chief producing areas for both crops. Most of the jute consumed in Shanghai was imported from India.

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Among the food industries, Shanghai's flour mills, as we have been above in Chapter Nine, depended more heavily on foreign wheat imports than on what they drew from China. The six plants in Shanghai in the 1930's producing dried, powdered, or frozen eggs were all foreign-owned and all large-scale, employing an average of about 350 workers per plant.[15] The area from which they drew their eggs has already been outlined in Chapter Nine. While local sources were important in this industry, they did not fill the entire demand, and it was necessary to bring eggs from as far as Hankow. Shantung was also a large egg-producing center, but the factory production of preserved eggs in Tsinan and Tsingtao combined was less than a third of Shanghai's.[16] It is reasonable to suppose that a measure of this difference was accounted for by the water transport network feeding Shanghai and the lack of it in Shantung.

Of all the food industries in Shanghai, tobacco manufacturing was most notably divorced from major sources of supply. The cigarette industry in China had been started on a large scale by the American Tobacco Company in the late 1890's (it merged with British interests in 1902 to form the British-American Tobacco Company, the largest producer of tobacco products in China). During the first decade of the twentieth century, its foreign tobacco experts surveyed soil and climatic conditions in China and fixed on three main areas where American tobacco seed would grow best so that its leaf could be blended with the native Chinese leaf (which was produced in small quantities in most parts of central and north China but with the best quality leaf coming from the three areas selected by the foreign experts) to produce an inexpensive but good quality smoke. The three areas were located in south central Shantung, northwestern Anhwei, and central Honan. Large Chinese cigarette producers entered the field after 1905, drawing on the increasing domestic production of foreign-type leaf and blending it with Chinese leaf.[17]

In spite of the presence of large industrial centers (by Chinese standards) in or near these main producing areas (Kaifeng and Hankow for Honan, Kiukiang, Wuhu, and Nanking for Anhwei, Tsingtao and Tsinan for Shantung), approximately 60 per cent of

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all the factory-made cigarettes in China were produced in Shanghai from 1925 to 1935.[18] The Shanghai cigarette factories drew about half of their tobacco from Shantung, 20 per cent from Anhwei, and 20 per cent from Honan.[19] The remaining 10 per cent was imported, mainly from the United States, but the amount imported continued to decline as domestic production of foreign-style leaf increased, and by 1935 it was about half what it had been in 1925, the overall average for the period 1925–1935 being 10 per cent. The magnetism of the Shanghai market gave it a commanding position in spite of its distance from the leaf-producing areas.

Shanghai industries using large amounts of metal, and the rubber goods industry, were the farthest removed from their sources of raw materials. Virtually all of the steel, ferro-alloys, and non-ferrous metals (with the exceptions of antimony and tungsten) were imported. Until the recent subsidized development program of the Communist Government, large-scale modern production had not been profitable in China proper for either iron or steel, with the exception of three plants which produced mainly from local scrap and which served a local market.[20] These three plants were in Shanghai, and were therefore by definition market-oriented. Two plants in Pootung were established in 1918. One produced steel from local scrap in two open-hearth furnaces of 30 and 70 tons capacity respectively, and the other probably produced no steel (since its "blast furnaces" were of only 12 and 33 tons capacity respectively), but poured iron castings.[21] Both plants worked only sporadically until 1934, when they were shut down. They were reopened by the Japanese in 1938, presumably on a military, and therefore a non-paying basis.[22] (Iron and steel were made for a few years during the war in Chungking, but on a small and uneconomic basis.)

The third plant was the steel-casting unit of the Kiangnan Arsenal, which operated two 15-ton electric furnaces to produce regular plate, high-speed, and armour steel for its shipyards and munitions works, using entirely local scrap. It was dismantled in 1932.[23] Other engineering and metal-working plants in Shanghai had small iron- and steel-casting furnaces of a few tons' capacity, but such small furnaces are necessary in any modern industrial complex for re-working scrap. They do not add to existing stocks.

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The reason for the absence of a steel industry in China, or in Shanghai, was the inability of the industry to meet the price of foreign imports. China's total iron ore resources are not inconsiderable, but in the Yangtze basin, where most of the production attempts have been centered, the ore deposits are small and scattered so that their exploitation imposes high costs. Small deposits of coal are also found in scattered localities along the lower Yangtze, but the combined costs of mining and of transport to production centers were too high to permit economic iron or steel making.[24] In the case of Shanghai, not only did these factors operate despite its water connections with the ore and coal deposits along the Yangtze, but as a seaport it could not produce iron or steel from domestic or foreign ore at anything like the price of seaborne imports of foreign iron and steel. Fortunately its maritime connections enabled it to draw on foreign sources for iron and steel and to produce finished metal goods at a cost which still allowed them to compete in the China market with foreign imports of finished metal goods.

Among the large metal-using industries, the vehicle plants (aside from the shipyards of the Kiangnan Arsenal before 1932) imported almost all of their finished steel plates, wire, rods, tubing, and other semi-finished steel products, and most of their cast iron, directly, or indirectly as recastings from iron and steel scrap. The same was true of the plants producing machinery, with their large use of more highly-finished steel products and special steels.[25] The nine large-scale modern shipyards produced primarily river and small coastal craft, the largest ship built up to 1932 being of 11,000 net tons. The steel, production machinery, and most of the engines installed in these ships were imported, and yet it was still apparently possible for the yards to compete in the China market with European, Japanese, or American yards. In 1930 the nine yards turned out a total of 71 ships with a gross tonnage of 17,839, and an average tonnage of 240.[26] There were also about 30 smaller shipyards building Chinese-style wooden craft, from canal sampans to large coastal junks.[27]

Among the other metal-using industries, the food canning and can-producing plants in Shanghai imported all of their tin plate, primarily from the United States.[28] China has significant deposits

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[135] China has significant deposits
of tin and produced in the 1930's between 3 and 4 per cent of the
● 439 world's tin ore. It is mined in the southwest tableland of Yünnan
316 and Kwangsi, and in the hills which form the divide between the
[325] Hsi and Hsiang River basins (in Kwangsi and Hunan), but no tin was smelted anywhere in China until 1932, when a small plant was established at the largest Chinese mine in Yünnan. The ore, and the small amount of smelted tin were almost entirely exported. China before 1937 was the leading world producer of both tungsten and antimony, and Shanghai was able to fill its own small needs for these alloys entirely from domestic sources. Both ores were mined predominantly in the basins of the Hsiang and Yüan Rivers in Hunan, and over 90 per cent of the total production of both ores was exported, nearly all of it through Shanghai.

282 Hides for the leather industry in Shanghai, and for export, came
438 to the city, in order of importance, from Manchuria by sea, Tientsin (which acted as the main collecting center for hides from the grazing lands of northwest China) by sea, Shantung (Tsingtao and Tsinan) by both sea and rail, and from Hankow (collecting center for the hides of central China) and Szechuan via the Yangtze. Hides from Kiangsu and Chekiang were considered greatly inferior as well as being very limited in quantity in this animal-poor area of intensive hand agriculture, and accounted for less than 3 per cent of Shanghai's total supply.[29] Rubber was of course entirely imported.

[289 Shanghai's wood-working, furniture, and paper industries were
322] almost entirely dependent on imported wood from Canada, the
439 United States, and Scandinavia. The delta area produces no wood
438 at all, and the nearest commercially usable stands are in the hills along the Chientang River south and west of Hangchow, but they are small and of poor quality. About one-tenth of the quantity of foreign imports came in by junk from south China, particularly from Foochow, the lumber center of the China coast by virtue of the heavily wooded slopes of the Wu Yi and Ta Yü ranges, too steep for agriculture and not crossed by any important transport routes.[30]

388 The two leading chemical industries, soap and matches, provide
438 in the sources of their raw materials an illustration of Shanghai's position as a manufacturing center in an otherwise pre-industrial economy. There were about fifty soap factories in Shanghai in the

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1930's, or about half of the large-scale mechanized soap factories in China. They drew 90 per cent of their raw materials from domestic sources. Lye (potash) was obtainable from plants in Shanghai. Vegetable tallow and vegetable oils (most importantly, cotton, peanut, rape seed, sesamum seed, and castor) came to the city via the Yangtze system from the major producing areas of central China.[31] The fruit of the tallow tree is gathered in central China in October and the oil pressed out during the winter, but it is not marketed in Hankow and sent to Shanghai until the spring rise of the waterways leading to Hankow makes easy navigation possible. A dry spring makes the market soar in both Hankow and Shanghai.[32]

The average Shanghai price before the war was nevertheless substantially below that of foreign vegetable oil imports (despite the production of coconut oil in southeast Asia). Vegetable wax from central China also largely replaced foreign imports of paraffin wax after 1930, when the *likin* (internal customs tax) was abolished by the Kuomintang government. The cheapness of domestic tallow, oils, and wax in Shanghai relative to seaborne foreign imports was clearly related to the use of inland water transport in bringing these products to the city. The fact that 80 per cent of Shanghai's soap production in the early 1930's was marketed outside Kiangsu also suggests that the city's water connections with its hinterland were basic in locating the industry there. Only 10 per cent of the Shanghai soap industry's raw materials were imported, largely coconut and olive oils for making especially high-quality soap for the domestic market.[33]

By contrast, the Shanghai match industry was almost entirely dependent on overseas sources for its raw materials. It imported all of its sulphur (largely from Japan), all of its paper and cardboard (from Sweden), and all of its match-making machinery (from Japan). Most of its phosphorous was also imported, but some was produced locally from animal bones. Ample sulphuric acid was produced in Shanghai. For this product of such high unit-value by weight, raw materials to which so much value was added by manufacture could economically be imported, and the finished matches were marketed in every province of China.[34] Shanghai was never-

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381 theless industrially out of gear with the rest of China to such an
439 extent that the match industry imported even its paper and cardboard.*

Chinese sources could maintain Shanghai's soap manufacturing, using relatively bulky agricultural raw materials, but the match industry, dependent on relatively finished and specialized materials, was obliged to rely predominantly on overseas sources. The city's market was able to hold both of these greatly dissimilar enterprises, each typical of much of its manufacturing complex.

306 The jade-cutting industry may be cited as a final illustration of
439 the market-oriented character of Shanghai manufacturing as a whole. While jade-cutting would presumably be less likely than diamond-cutting to gravitate to primate financial and banking centers, it is equally dependent on specially skilled labor, which is most often found in the largest cities, and on the commercial services and connections of a primate market. Most of the world's jade is mined in northern Burma, but Shanghai, rather than Rangoon or Calcutta, was the world's leading jade center for cutting, polishing, and marketing. It imported its rough jade from Burma by sea, paying a 50 per cent export duty *ad valorem*, and sold the finished product not only in China but all over the world. Japanese attempts at competition in this industry during the 1920's failed to dislodge Shanghai from its leading position.[35] An early start and accumulated skill have been more important in this industry than in almost any other, but it was the Shanghai market which attracted and continued to hold it.

### *The Cost of Raw Materials*

435 It will be useful to estimate the percentage of total costs which is represented in different Shanghai industries by the cost of delivered raw materials in order to throw light on the competitive position of the city as a location for manufacturing. The published estimates of costs are contradictory, and the implication is that accurate information is not available, an understandable condition in view of the

* The relative importance in Shanghai manufacturing of the industries discussed above (pp. 171–178) is indicated by the tables above on pages 168, 169, and 170. Consumption figures are unfortunately not available.

439 316 Consular and Customs reports from Shanghai during the early decades of the modern city show that it depended almost entirely on overseas imports of coal. There was a large movement in ballast from England to Shanghai from the opening of the port to foreign trade in 1843 through the period of the 1860's, when foreign merchants had difficulty finding a market for foreign goods in return for China's tea and silk.[43] It was consumed largely by the coastal, river, and ocean vessels fueling at Shanghai.[44] This relatively cheap ballast coal from England was however gradually replaced after 1870 by even cheaper coal from Nagasaki in Japan and from the large Chinese government-operated Keelung mines (subsequently taken over by the Japanese in their conquest of Formosa in 1895) at the northern tip of Formosa, opened in 1875. Both of these new sources were on tidewater and coal from both could move to Shanghai as part of the growing volume of east Asian maritime trade.

316 438 The first large-scale coal mine in China was opened at Kaiping, Hopeh, in 1878,* (map 9), and the first shipment from Kaiping to Shanghai arrived in 1881, but this coal was unable to compete with Japanese imports at Shanghai until after the turn of the century. By 1930, the Kaiping mine accounted for 23 per cent of China's annual coal production.[45] Kaiping was connected by rail to Tangku and Tientsin in 1888 (the first permanent railway in China), and to Shanhaikuan, via Chingwantao, in 1894. At Chingwantao, 79 miles by rail north of Kaiping, a seawall and wharves were built between 1899 and 1902 to permit shipment of Kaiping coal from this port, where there was no bar as at Tangku.[46]

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438 439 This facilitation of transport, and the relatively short rail-haul from the mines to Chingwantao, were undoubtedly factors in the increased ability of Kaiping coal to compete in the Shanghai market after 1902. In the 1890's, with the assistance of French capital, another new supply of coal appeared on the east Asia market, from Indo-China. The mines, located on tidewater near Haiphong (map

* This was the Kaiping Mining Bureau, organized at the instigation of Li Hung-chang in 1878, and later (1912), after a period of British control (1901–1912), reorganized as the Kailan Mining Administration, a joint Sino-British undertaking and one of the pioneer modern industrial enterprises in China. For a valuable account of its development, see Ellsworth Carlson, *The Kailan Mines* (1949).

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9), could compete in Shanghai with Japanese, Formosan, or north China coal. 439 438

The table below estimates the relative rank of major sources for Shanghai's coal in the 1930's, by percentages of total tonnage of coal delivered in Shanghai in each year from all the sources listed.[47]

| *Source* | *1931* | *1932* | *1933* | *1934* | *1935* | *1936* | *Average 1931–36* |
|---|---|---|---|---|---|---|---|
| Kaiping (Hopeh) | 37 | 46 | 37 | 36 | 37 | 36 | 37.5 |
| Tzuchuan-Poshan (Shantung) | 7 | 6 | 11 | 17 | 19 | 22 | 14.0 |
| Japan (ex-Nagasaki) | 18 | 16 | 15 | 8 | 5 | 3 | 10.8 |
| Fushun (Manchuria) | 19 | 13 | 13 | 6 | 3 | 1 | 9.5 |
| Anhwei (mines on Yangtze) | — | — | 9 | 10 | 14 | 23 | 9.2 |
| Chunghsing (Shantung) | 8 | 8 | 6 | 12 | 12 | 8 | 9.1 |
| Haiphong (Indo-China) | 4 | 6 | 6 | 5 | 5 | 5 | 5.3 |
| Shansi (mine(s) unspecified) | 7 | 5 | 3 | 6 | 5 | 2 | 4.6 |
| | 100 | 100 | 100 | 100 | 100 | 100 | 100.0 |

Mainland places mentioned in the foregoing table will be found in map 9. The Poshan and Tzuchuan mines were located in the major coal field of Shantung. Both mines began to produce coal on a large scale in the late 1920's, after they were connected by rail to Tsingtao, approximately 175 miles away. Tzuchuan and Poshan coal moved to Shanghai largely by rail to Tsingtao and thence by sea, although there was some rail shipment via Nanking and thence to Shanghai via the Yangtze. Fushun was linked by rail with the port of Yingkow (Newchwang), 120 miles to the south at the mouth of the Liao River, as well as by limited water transport on the river, and by rail with Dairen, Manchuria's leading port, 210 miles to the south. The mines in Anhwei were located along the Yangtze, but production was not begun on a large scale until after 1932. The Anhwei coal deposits are relatively small and their exploitation is more expensive than in the larger Chinese mines, such as at Kaiping. Only their location along the Yangtze made their exploitation profitable as a source for Shanghai's coal supply. Coal from Chunghsing in Shantung moved 120 miles by rail to Haichow, and thence to Shanghai by sea. Shansi coal entering Shanghai came principally from the mines at Tzu- 438 316

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chou, and moved to both Tientsin and Haichow by rail, whence it traveled to Shanghai by sea.

The figures for coal imports from Japan and Manchuria in 1931, 1932, and 1933 listed in the foregoing table owe their size primarily to Japanese dumping of coal on the Shanghai market in these years at a price which was often less than two-thirds of the domestic price of coal in Japan. The table shows that while this dumping did not greatly affect sales of Kaiping coal in Shanghai, it did cut into the Shanghai market for Shantung coal in particular (Tzuchuan, Poshan, and Chunghsing). This may suggest, in the absence of complete available price figures, that Kaiping coal was relatively cheap in Shanghai and that Shantung coal was relatively expensive. A reason for this difference may be found in the long rail-haul necessary for coal moving from Shantung mines to Shanghai (120 miles from Chunghsing and 175 miles from Tzuchuan-Poshan), compared with the shorter rail haul of 79 miles for Kaiping coal to Chingwantao.

Railway figures show that coal shipments arriving in Shanghai by rail in the years 1931, 1932, and 1933 averaged less than one-quarter of the railway coal shipments recorded for 1930, 1934, 1935, and 1936.[48] Apparently direct rail haulage of coal from Shantung (or from other sources) to Shanghai was not profitable in the face of Japanese dumping in Shanghai. Figures of the Maritime Customs for these years show no significant falling off in seaborne cargoes of coal arriving in Shanghai between 1931 and 1933, and in fact record a slightly higher average for these three years than for the years immediately preceding and following them, readily explainable in terms of larger imports of the unnaturally cheap Japanese coal for inland distribution as well as for consumption in Shanghai. In any case, Kaiping coal apparently had no difficulty in maintaining its position on the Shanghai market despite Japanese dumping.

Shanghai drew most of its coal from sources closely oriented to water transport. Coal deposits are widely distributed over large areas of north and central China. While Shanghai received its largest supply from Kaiping mines near the coast, and a relatively constant supply from the mines on tidewater at Haiphong, it drew

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inland coal only from Fushun (on a navigable tributary of the Liao, and normally the cheapest pit-head coal in East Asia due to easy extraction from huge open-pit mines), Anhwei (deposits along the Yangtze), Shansi (China's major coal reserve), and Shantung (the nearest large coal deposits to Shanghai). The Chinghsing mines in Hopeh could not depend for transport on their largely unnavigable river connections with Tientsin, 190 miles away by rail.

The accompanying table lists the average annual production (in millions of tons) of the major coal-producing provinces of China in the early 1930's.[49]

| *Province* | *Production* |
|---|---|
| Hopeh | 7.7 |
| Shantung | 3.5 |
| Shansi | 2.7 |
| Honan | 2.1 |
| Szechuan | .9 |
| Hunan | .6 |
| Anhwei | .6 |

Hopeh, with its Kaiping mines 79 miles by rail from the port of Chingwantao, supplied the largest share of Shanghai's coal for the period 1931–1936 (37.6 per cent). Shantung, immediately north of Kiangsu and the nearest large coal producer to Shanghai, but with limited water transport, supplied an average of only 23.1 per cent of Shanghai's coal during the same period. Inland Honan, Szechuan, and Hunan do not figure as sources of Shanghai coal. Anhwei, also without a seacoast, but with mines along the Yangtze, accounted for 23 per cent of Shanghai's coal supply by 1936. Landlocked Shansi, China's third producer of coal accounted for less than five per cent of Shanghai's coal supply for the same period. Overseas coal imports (Japan, Manchuria, and Indo-China) accounted for 25.6 per cent of Shanghai's coal supply for the period 1931–1936, or more than any Chinese province except Hopeh (see table above on p. 185).

Ting estimates that for China as a whole in the period of the 1930's domestic coal was moved 70 per cent (by weight) by rail, and

done with dispatch soon after Shanghai had been taken. By the end of 1949, railways destroyed in the delta area during the civil war had been restored to operation, and by the end of 1950, most of the lines in China as of 1936 had been rebuilt, plus considerable new mileage. Great stress has also been put on maintaining a high level of commodity flow by water transport from the Yangtze and the delta to Shanghai. Numerous hydraulic improvements were undertaken in 1949, 1950, and 1951, including the widening, deepening, and regulating of existing waterways, the building of additional carriers of all types,* and in November 1950 the commencement of a very large five-year project for the regulation of the Huai River, designed primarily to prevent its disastrous floods, but also to facilitate navigation.[2]

But the sea routes, equally vital to the city's economic life, remain largely closed. Political capital has been made of this unfortunate situation, since it has in effect called the Communists' bluff in their repeated assertions that Shanghai was a foreign sore on the Chinese body politic and should be integrated with China rather than with its kindred economies overseas.

> The new Shanghai . . . is closely linked by commerce and the interflow of goods with the rest of the country. Facing inland instead of across the sea, it is integrated politically, economically, and culturally with the nation whose needs it serves. From being a source of infection in China's economic life, Shanghai has today become a source of strength to the new China.[3]

This is cold comfort. Shanghai can be a source of strength to China only if it produces, and it cannot reach more than a part of its industrial potential while the sea routes which feed it are closed. The shortage of coal in the city remains, if one may read between the lines of official statements and news releases. Electric power is rationed; new users are discouraged, and one gathers that current users are unable to get enough to increase their production. Remembering the crucial importance of cheap and abundant electric power for all of the city's industry, as we have discussed it above

* 192 inland water craft were built in Shanghai alone in 1950, totalling 28,000 tons displacement, according to Ching-Chi Chou-Pao for January 4, 1951, p. 9.

2: Murphy G-4 (no date) 1953 AF15 East China AF15



in Chapter Ten (it constituted probably Shanghai's outstanding advantage for manufacturing), the present situation is discouraging. We may assume that the newly rebuilt railways are now carrying much larger amounts of coal from north China to Shanghai than they did before the war, but this greatly increases its price as against sea shipment, and is unlikely to have the necessary capacity. Industrial machinery, liquid fuels, rubber, chemicals, and the other goods which were imported from overseas and which are vital to Shanghai's industrial recovery are also short under the combined Nationalist blockade and United Nations embargo.

Ocean shipping using the port virtually disappeared during 1949 and most of 1950. Toward the end of 1950 it reappeared on a very small scale, and now averages perhaps two or three ships a month, all in the coasting trade. The entrances to the Yangtze have been mined by the Nationalists, and the main ship channel in the estuary has not been dredged since 1937. Sunken ships, to which floating mines still occasionally add, further block the river. Until early 1951 there was a small trade with Hong Kong, but this has now nearly disappeared with the adoption of the United Nations embargo in December 1950, and the few ships which call at Shanghai are restricted almost entirely to the trade with Tientsin, Tsingtao, and Dairen. Rates are prohibitively high, and all imports and exports through the port of Shanghai are rigidly controlled by the government. Luxury goods and most consumers' goods are excluded from the list of admissable imports. The city's busses and most of its other gasoline vehicles have been converted to run on charcoal gas. Export and import licenses can be obtained only where it is considered in the national interest, but buyers to whom exports might be sent are in many cases unreachable, as witness the consistent import surplus for Shanghai itself of 100 to 120 per cent over exports during 1951.* [4] Such conditions are crippling for a city which

* The Soviet bloc however seems now to be filling the gap in China's foreign trade left by the shrinking of commercial relations with the West, judging from current reports. (See Ch'en Han-seng, "The Future of China's Foreign Trade" (1952), *New China News Agency Bulletin*, September 29, 1951, *Hsin-Hua Yüeh-Pao*, October 1951, *Ching-Chi Chou-Pao*, September 27, 1951 and April 24, 1952, *Peoples' China*, August 1, 1952.) But for trade with the Soviet bloc, though it is still a new development whose permanent outlines are uncertain, Shanghai is in a relatively

2: Murphy G-4 (no date) 1953 AF15 East China AF15



505 not only depended heavily on seaborne supplies, but which had a
439 large and important transit trade.

As if in a commentary on the nature of the city's food supply,
433 food, in particular rice, has remained cheap and plentiful throughout the period of Communist control. Order was quickly restored in the delta in 1949, and the flow of low-cost food to the city was maintained despite a nearly universal food shortage or famine in the rest of China during the winter of 1949–50, and despite the Nationalist blockade, which prevented any substantial amounts of food from arriving in the city by sea. The Communist Government has apparently been able to solve, at least to a degree, the problem of local rice supply during the planting season and at festival periods, by controlling prices and arranging for large government purchases which are released on the market at stable prices whenever the situation requires. There is no suggestion that local food supplies are not entirely adequate to meet the city's demands under such a
[162] system of management. While no official figures have been released, it is unlikely that Shanghai's population is substantially less than the four millions it had reached in 1936; it may have risen closer to the five million mark, since the great influx of people after the Japanese war has not apparently been balanced by the still limited exodus.*

288 Nationalist bombings during the winter of 1949–50 did only minor industrial damage, and came to an end by late 1950 with the arrival of jet defense planes from the Soviet Union and the Nationalist loss of the Chusan Islands, which had been the major base for the bombings of the city. A continuing deterrent to industrial recovery however has been the still inadequate domestic production of raw cotton. Several cotton textile factories in the city were obliged to shut down entirely during 1949 and 1950 for lack of raw cotton, and while all or most of these have subsequently reopened, not enough cotton is coming in to maintain peak production.†

poor position, and its economy has in the past been closely geared with that of the West.

* See above, p. 21. Foreign and Chinese press reports still consistently refer to Shanghai as the fourth largest city in the world, with a population given variously as 5 or 6 million.

† *Hsin-Hua Yüeh-Pao* for November 1951, 130–131, reports that while production

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Because of this wider activity, the Council on October 16, 1940, severed the former Industrial Section from the Secretariat and established a separate Industrial and Social Division.[11] Within the Division there were created four Sections. They were the Industrial Section, maintaining its concern with physical conditions of employment and including the Technical Training Service, which organised technical classes for adult workers; the Statistical Section, responsible for compiling indices of living costs of Chinese and foreign employees, and statistics of wages and hours of work; the Industrial Relations Section, mediating industrial disputes and concerned also with non-physical conditions of employment, including workers' earnings and compensation; and the Welfare Section concerned with hygiene in the factories, workers' food and housing, and factory medical services, with the control of rentals of lower paid sections of the community through a licence to sublet, and with child protection.

In April 1941, an Industrial and Social Affairs Committee of the Council was formed, composed of members chosen to represent varying national interests and differing points of view. There was no representative of Chinese workers upon it. The social outlook of neither Chinese employers nor Western foreign employers had yet seen the right of the worker to have his viewpoint represented; still less would such a view commend itself to Japanese. The most that could be achieved was to inject into the membership sufficiently liberal representatives who could be counted on to speak for the common man.

WHEN PACIFIC HOSTILITIES developed in December 1941, industry, which throughout that year had met successively restrictions and steep surcharges in the use of electric power, difficulties in securing raw materials in the United States and elsewhere, controls in the purchase of foreign exchange to pay for imports, and a great shipping shortage, now faced a major crisis. The Japanese authorities required the immediate registration of stocks of essential raw materials—metals, fuels, lubricating oils, chemical products and many others. These were first frozen by preventing their movement. Those found necessary for the Japanese war effort were requisitioned. Later, permission to move stocks was granted to

[11] In subsequent pages frequently referred to simply as the "Division."

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471 Sino-Japanese trade associations which were required to be formed [439] for the purpose; no individual firm could make application for permits directly. Unit prices of power were increased by the Japanese-controlled, former American, Shanghai Power Company; coal, though controlled, was difficult to obtain at the official price and was very expensive on the black market. In consequence of all these factors many plants closed. Others still operated but on a reduced scale. Checks made by the Division in the Spring of 1942 indicated that only 55 per cent of former plants carried on, and these with only some 50 per cent of the former working force. Approximately 100 American- and British-owned plants, the most significant enterprises in the city with the exception of the textile mills, came under Japanese control. These were variously dealt with. Some continued operations fulfilling orders for military purposes. These included breweries, bakeries, cigarette plants and rubber shoe factories, as well as machine shops making subsidiary munition parts. Others produced goods for civilian use. Some were operated under direct Japanese control. Others continued to be operated by former foreign staffs under Japanese supervision and instruction.

Industry in Shanghai began to conform to the pattern laid down for it by the Asia Development Board, the instrument of the Japanese military forces of occupation in the economic field. A thorough survey of all plants employing 30 workers or more in the Settlement, of whatever national ownership, was completed by the Japanese Board by June 1942. Teams of experts went into all enterprises to examine the financial structure, the mechanical equipment, the production capacity, the raw materials and finished goods on hand. Thenceforth the Board determined which plants would operate and what goods they would produce.

471 The closure of so many plants created much unemployment.
464 Many workers were induced by reduced fare concessions to return
466 to the provinces. There were prolonged struggles on the part of dis-
166 charged workers to obtain dismissal allowances adequate to finance
722 their return home and to tide them over months in which they might try to adapt themselves to new means of livelihood. Only one month's earnings and a second month's to those who actually returned to the country, were, however, enunciated by the Japanese authorities as a standard, despite the efforts of the Division to secure a better arrangement.

[1] [after December, 1941 -- Analyst]

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powers, such services of advice, consultation, presentation of facts and voluntary mediation are important functions of the administrative authorities. With the full powers that the Chinese authorities will exercise in future in re-occupied Shanghai it is hoped they will be able to build upon the foundations already laid.

Shanghai was a city of large trading interests before it attained significance as a manufacturing centre. It was still, at the outbreak of Pacific hostilities, an important commercial city with a large export trade despite the severance of the Yangtse Valley trade after 1937. It was, prior to December 1941, the banking centre of China. After 1937 it was an important educational centre to which universities and middle schools from provincial cities had come when Sino-Japanese hostilities caused their withdrawal. There was therefore a large professional class in the community—professors, teachers, doctors, lawyers. The question of what happened to their livelihood is as significant as is the fate of the workers' economy.

A study of the standard of living of Chinese salaried employees was made in October-December 1941. So excellent a response to the request for the keeping of detailed information was made that, out of 1038 families responding, 441 perfect records were available. Originally it was intended to limit records to families with incomes below CNC$1000, but those with incomes beyond this amount so readily supplied information that the limit was waived. The majority of incomes were between CNC$500 and $1500. A Provisional Cost of Living Index was developed by May 1942 from the records of 100 families to meet the immediate need for a criterion to judge the situation in which Chinese salaried employees found themselves.

The average salaried family was found to be larger than the worker's family—6.60 persons, 4.72 consumption units, as against 5.02 persons, 4.41 consumption units in a worker's family as studied in December 1941-January 1942.

The total income of the Chinese salaried family studied averaged $688.38 per month. Earnings of the husband accounted for 84.96 per cent, those of other family members only 3.95 per cent. The salaried family, as did the workers family, had to obtain other income; 11.09 per cent came from sub-letting rooms, interest and dividends, gifts and assistance, profits on speculation and gambling.

3; Hinder G-5 (1933-1942) 1944 AF15 East China AF15



438 chiefly in the form of the city's cotton textiles, soap, cigarettes,
262 matches, and rubber shoes. In addition, through importing firms,
722 a certain amount of foreign rice arrived, usually from Indo-China; but Saigon rice was considered inferior, and Chinese rice was preferred when it was available.

It was obvious that when the city was surrounded by Japanese troops, its waterways could no longer be used for the transportation of rice. Immediately after the outbreak of hostilities the Shanghai Municipal Council placed orders in Saigon for 7,000 tons of rice, and chartered ships to bring it to the city. But because fighting was taking place across the Whangpoo River, the ships would not enter it, and it was necessary to send steel lighters by tug out into the Yangtse mouth to off-load the rice. This rice, stored in godowns all over the area south of Soochow Creek, was available when in November 1937, the expected severance of supplies from the interior occurred.

It was then hoped, as time went on and hostilities were removed further from the neighbouring provinces, that normal trade relations with the hinterland might be restored. For a time rice did come into the city in fair quantities. But increasing controls exercised by the Japanese military, who gave Japanese firms the privilege of collecting rice with reservation for military use, and increasing difficulties of obtaining rice in the growing districts due to various factors, by 1940 compelled Shanghai to rely almost entirely on rice imported from Saigon. The steep rise in cost of living
511 in Shanghai dates from the commencement of dependence on for-
● 439 eign sources. It was tragic that Shanghai should be tied to foreign
722 exchange in order to feed its population at a time when the exchange value of the Chinese national currency was falling.

Other factors soon intruded. Freight rates and insurance charges rose month by month following the outbreak of the European war and added their share to the increasing cost of imported rice. But the situation was to become even worse. During the autumn of 1940 Japan was engaged in gaining control of northern Indo-China, with the result that after early February 1941, no orders for rice would be accepted in Saigon until the Japanese demand for 700,000 tons had been met.

722
262 WHERE, THEN, WAS Shanghai to get rice? Renewed efforts to obtain
438 rice from Chinese provinces near Shanghai failed. Prior to the sign-

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435 members of the Chinese community, purchased broken rice and
262 sold it through rice shops to the needy through eight periods of
633 several weeks each. A total of 223,200 bags was distributed, the organisation making a contribution of more than two million dollars, the difference between the cost of the rice and the returns through sales at lower prices. In a similar effort to supply food to the poor, from February 1940 onward, the larger Chinese flour mills made available several thousand bags of flour daily at considerably less than the market price, to be sold in small quantities, also through shops regularly selling flour. More than two and a half million bags of flour were thus provided. Several importing firms also played their part in handing over ten per cent of all incoming flour consignments, totalling 185,000 bags, to reliable dealers for sale to actual consumers. Important as these efforts were they could not ease to any great extent the difficult situation.

741 The very substantial arrivals of rice and wheat from the Amer-
262 ican Red Cross for relief purposes also played their part. This
146 grain was distributed to organisations caring for numbers of needy people. Many refugee camps, hospitals, and institutions caring for children were the recipients of this food. The form in which the wheat came proved to be particularly suitable. It was "cracked wheat," wheat submitted to the first processes of milling only, consisting of the whole grain merely cracked. In consequence the precious germ of the wheat was still present, containing within it the important vitamin B complex which is significant in nutrition and in the prevention of such recognised dietary deficiency diseases as beriberi. The nutritional results for those fortunate enough to receive it were dramatic. Instead of gross signs of deficiency and the less dangerous but serious malnutrition which were everywhere prevalent, by comparison a glowing health appeared in institutions using the cracked wheat, though it could not provide all the needed protective foods.

435 In August 1941, the Chinese Government ruled that foreign
633 exchange would be obtainable only through its Stabilisation Board.
439 It then appeared that an instrument might become available which
262 would give the Council actual power to control prices of imported staple products other than rice which was already controlled through the agreement with the Hongkong authorities. The Board was sympathetic to the view that exchange for essential commodities

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should be granted only through the Council; and the Council in turn would allot it only to those merchants who would sell to retailers at a price fixed from time to time by the Council. As a means to control the final sale to the people, the Council sought and obtained from the Consular Body approval of a Byelaw empowering it to control prices at retail. On November 9, 1941, a Proclamation fixed the retail price of all imported rice at $130 per *shih*. The registration of all stocks of rice and flour was called for, and all movement of these commodities without a permit was forbidden as a means to keep them under control.

THIS WAS THE FOOD situation when Pacific hostilities supervened on December 8, 1941. It was fortunate that controls over essential commodities had begun, for there was thus in being the nucleus of what was, within six months, to become an extensive organisation controlling the issue and price of rice, flour, and other commodities. The Council had even, before December 8, examined in some detail what would be involved in rationing.

Soon after the opening of 1942, the Council issued a notification requiring holders of stocks of imported rice and of flour to deliver them against delivery orders issued by the Council, thus requisitioning at a fixed and fair price the stocks which the city held. It proved fortunate that in the early months of 1941 the hope of gain had induced many merchants to import large stocks of rice, for these proved sufficient to meet the needs of the Settlement and Concession at the reduced consumption rate required by the Japanese authorities during the first five months of the year. Indeed, in this outcome lay some justification for the lack of earlier rigid price controls which might have acted as a deterrent to importers. Stocks of native rice were not taken into consideration since, as has been shown above, the Japanese military had controlled the collection of native rice for the previous two years, using it for their own purposes and allowing virtually none to reach Shanghai.

The methods used in the spring of 1942 for the husbanding of precious stocks of imported rice were: reduction in the number of shops licensed to sell rice, fixing the number of days on which rice could be bought at three each week, limiting the selling hours on these days and reducing the amount of each sale to one *shun* (1.72 pounds) to any one person. There were in consequence long rice

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queues, and the great urge to obtain rice and fear of being without this staple caused those standing in them to crush closely against the next in line. There were frequent cases of injuries despite the efforts of the police to control the lines. Because of this situation, "rice rustlers" stood in the queues, securing the amount permitted to be bought, which they then sold at more than the official price. It was a relief when the plan for the issue of rice ration tickets finally was approved by the Japanese authorities and was put into effect in July 1942. The distressing rice queues disappeared.

The price of rice rose steadily in the months after the institution of control. The difficulty of getting rice in the queues induced farmers in the nearby countryside to smuggle in native rice which was sold at high prices up to CNC$550 per *shih* of 172 pounds. The Japanese authorities requested the Council to forbid the movement of native rice in the Settlement, as a means, it was claimed, to bring down the price in the provinces. The Japanese authorities had to buy rice there, and, it was argued, the high prices ruling in the city induced higher prices in the provinces. It was contended that Shanghai's future rice supply, when the stocks of imported rice should be finished, must come from the provinces, and it would be to the ultimate advantage of the Settlement population if the purchase could be on reasonable terms. It was known, however, that the native rice must be considerably higher in price than the imported rice when it finally came to be supplied, and therefore at intervals the price of imported rice was raised to ease the ultimate transition to the native rice price, and to build up a fund in the Council's treasury to permit native rice to be sold at a loss if need be. Japanese authorities made available some, but not sufficient, rice from May 1942, when the stocks of imported rice were used up.

The fixing of the saleable quantity and of the price of rice and flour and flour products such as noodles, *ta ping* or big flour cakes, and many other items was only part of the emergency measures undertaken to secure essential commodities. Before Pacific hostilities developed, through an Association of Importers and Manufacturers, the prices of several hundred packaged goods, foods and drugs chiefly, were fixed. Fixing of the prices of coal and coal briquettes followed. Prices for milk were declared. Stocks of tinned milk were requisitioned and kept for children and invalids. It was